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TRENDS IN THE ENLISTED FORCE OF THE
U.S. MILITARY SERVICES 1974-1987

by

Cathy Lynn Good

December 1988

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Trends in the Enlisted Force of the U.S. Military Services 1974-1987

by

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requirements for the degree of

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December 1988

ABSTRACT

This thesis examines the movement of personnel into, through, and out of the enlisted forces of the U.S. military services during the period FY1974-FY1987. The vehicle for this analysis is the Enlisted Transition Matrix, which is used by DOD and the Office of Management and Budget (OMB), to track the transition characteristics of the enlisted forces. The Matrix data were supplied by the Defense Manpower Data Center, Monterey, CA. The data were aggregated to the service-wide and years-of-service (YOS) level. The main conclusion of this thesis is that analysis of data aggregated to this level does not yield useful information. Economic and demographic factors fluctuated significantly during the period of interest; however, the effects of those fluctuations are not evidenced in enlisted force information aggregated to the force or YOS level.

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I. INTRODUCTION

In a review of the first decade of the All Volunteer Force (AVF), Gary R. Nelson, a military manpower economist, noted that a major problem with force management has been the lag time between the initial observation of a recruiting/retention problem and the time the programming budget and congressional systems took action to resolve it. Nelson endorsed "an early warning system that would allow the quick identification of upcoming problems and expedite the process to resolve them." [Ref. 1:p. 21]

Before an early warning system for recruiting/retention problems can be developed, researchers and manpower managers must gain an improved understanding of the relationships between the monetary and non-monetary factors that affect the career decisions of the youth cohort, and develop a model which quantifies the influences of these variables.

One approach to understanding the interrelationships between the variables involved in career decisions is to review historical data relative to the response of the enlisted force to changes in the national economic environment and changes in pay and benefit policies initiated by DOD.

One of the "tools" used by DOD and the Office of Management and Budget (OMB) to track the movement

(transition) of personnel into, through, and out of the enlisted force is the Enlisted Transition Matrix. [Ref. 2] The matrix is based on the "Markov Chain Model" applied to a length-of-service distribution. [Ref 3:p. 98] This model represents a manpower system in which people are classified according to their accumulated length of service. The system is regarded as a set of interconnected stocks and flows which promotes understanding and control of movement of personnel through the system. A basic assumption of the length-of-service application of the Markov Model is that "there are only two possible transitions open to an individual; either he must leave or increase his length of service by one time unit." [Ref 3:pp. 86] This assumption makes the model particularly appropriate in the military context because lateral entry into the military system is rare.

The purpose of this thesis is to utilize previous OMB analyses of these matrices to:

a. extract data from the Enlisted Transition Matrices previously analyzed by OMB for fiscal years 1974-1984 and generate transition profiles which capture the movement of the force over this ten year period;

b. analyze more recent data to update these matrices and develop transition profiles for fiscal years 1984-1987;

c. add the 1984-1987 transition profiles to those of the 1974-1984 period to put the newer information into historical perspective;

d. summarize the trends;

e. attempt to identify Navy policies and national demographic and economic factors that preceded major changes in the transition statistics; and,

f. recommend areas for follow-on research.

Note: Throughout this thesis, use of the word "year" will refer to the fiscal year.

II. REVIEW OF SELECTED RESEARCH

The following research efforts provide a small sample of the research literature that was reviewed in preparation for this analytical effort.

A. MILITARY MANPOWER TASK FORCE [Ref. 4]

The Military Manpower Task Force was formed by President Reagan in 1981 to:

a. review manpower capabilities of the current force;

b. analyze the ability of the nation to sustain a force with the required capabilities through 1987;

c. identify deficiencies that detract from the required capabilities; and

d. develop and recommend solutions to the identified deficiencies.

The members of the task force included the Secretary of Defense Caspar W. Weinberger; the Chairman of the Joint Chiefs of Staff, General David C. Jones; and the Secretary of the Navy, John F. Lehman. This distinguished group of government officials scrutinized the quality of the All Volunteer Force (AVF) in areas including manpower requirements and supply, the influence of pay and benefits on enlistment and retention, and possible adjustments to incentives that could prevent or enable recovery from manpower shortages.

The Task Force found that the success of military recruiting and retention was directly related to the state of employment in the civilian economy. A weak economy boosted military manning while a strong economy had the potential to negatively impact recruiting and retention.

B. FINAL REPORT OF THE PERSONNEL MANAGEMENT IN THE ALL-VOLUNTEER FORCE STUDY [Ref. 5]

Robert F. Lockman wrote the Final Report of the Personnel Management in the All Volunteer Force Study in 1980. The purpose of the report was to summarize the results of several studies produced by the Center for Naval Analyses (CNA). These studies examined the advantages and disadvantages of two kinds of personnel management policies for retaining men in the Navy. The first policy had to do with selecting recruits who were most likely to complete their enlistments and assigning them to jobs where they had the best chance of staying. The second policy was concerned with paying individuals bonuses to reenlist.

The second part of this report related to this thesis because it examined the effects of pay on first-and second-term reenlistments, and the effects of first-term bonuses on second-term reenlistments. The Navy enlisted force was broken up into 16 occupational groups. The findings included:

a. First-term reenlistment rates related strongly and positively to the Annualized Cost of Leaving (ACOL)

measure.[1] However, there was considerable variation by rating.

b. Second-term reenlistment rates were found to be much higher than first-term rates, but they were believed to mask a strong downward trend. The larger the first reenlistment bonus was, the smaller the reenlistment rate at the second reenlistment point turned out to be.

c. Men who received larger first-term bonuses had a second-term reenlistment rate that was lower than men who got smaller first-term bonuses. Higher first-term bonuses induced less career-oriented men to reenlist, but these individuals were found to be less likely to reenlist at the end of their second term.

d. There was evidence of a significant, negative relationship between bonuses and retention at future decision-points, which had important implications for force management and compensation policy, including retirement reform.

C. PROJECTING THE RETENTION OF NAVY CAREERISTS [Ref. 6]

In 1983, Aline O. Quester and James S. Thomason conducted a study to quantify the link between civilian job growth and retention of Navy enlisted personnel. The magnitude of the effect was measured at both the first and second reenlistment decision points.

The ACOL model was cited as being the most successful model at projecting short-term effects on retention of different pay packages. However, ACOL, and most other models were not designed for long-term projections because they were driven by the ratio of military to civilian

---

[1]ACOL analyzed: (a) the perceived difference between the military pay stream and the anticipated civilian pay stream, and (b) the effect of this perceived difference on the reenlistment decision.

compensation packages, and civilian wage levels were difficult to project in a long-term context.

Quester and Thomason modelled the pull of certain civilian occupations on specific Navy ratings by focusing on civilian job growth rather than changes in the civilian wage level. The study concluded that by 1990, even after controlling for observed historical differences in military pay and other key factors, technically oriented second-term sailors in specialties experiencing rapid civilian job growth, were less likely to reenlist for a third term than other sailors. This result had a number of implications for future military manpower policy and research. In terms of policy, the most important implication was that the current Selective Reenlistment Bonus (SRB) program would have to be more heavily tilted toward the technical ratings than it had been before.

There was also clear evidence that reenlistment rates in the Navy responded systematically to changes in the civilian economy. Different types of Navy personnel responded differently to changes in the civilian economy. More experienced enlisted personnel in technical ratings were found to be more likely to leave the service in response to increases in the numbers of comparable civilian jobs. The researchers manipulated the changes in the civilian economy holding all other variables constant.

The study recommended that DOD develop a policy tool that synthesized the short-term advantages of the civilian-wage-oriented retention model like ACOL. Longer-term projection capabilities of job-growth-centered models of military retention, like the model Quester and Thomason had initiated with this research, were also endorsed.

The study concluded with an expression of concern that the military would have great difficulty in the next decade retaining the highly technical personnel it would require. As projections for the civilian economy indicated that the demand for technically trained personnel would grow, these concerns were not considered to be unreasonable.

D. RETENTION AND CAREER FORCE QUALITY [Ref. 7]

Alan J. Marcus conducted a study in 1983, which focused on the effect of Navy policies and economic conditions on retention and quality. The impact of retention initiatives on the quality of the career force was examined. The most productive personnel (defined in this study by mental group) were the most sensitive to changes in economic conditions. Increases in general pay or SRB for specific ratings were found to induce more retention for higher quality personnel. However, if Navy pay lagged behind civilian pay, it was the high quality personnel who were the first to leave the service.

The studies summarized in this chapter contributed to the context within which the enlisted force characteristics

of this thesis were analyzed. The overall information and rationales used in these studies had a impact on the use of the National Unemployment Rate and Military Base Pay as the most significant and quantifiable factors which are expected to have a discernable impact on career decisions. The emphasis on the need for efficient management of the Selective Reenlistment Bonus (SRB) program to target specific occupational categories that were experiencing temporary or long-term shortages also had an impact on how the results of this thesis were interpreted.

III. REENLISTMENT RATE

The format of the data received from the Defense Manpower Data Center did not facilitate calculation of this ratio. However, because the term "reenlistment rate" is commonly used throughout DOD, attempts were made to collect reenlistment rates to be compared in context with the statistics calculated in this thesis.

Every manpower analyst contacted during this effort strongly discouraged use of reenlistment rates for research purposes. The problem with calculating the "rate" is associated with determining "the number of personnel eligible for reenlistment" to be put into the denominator. The issue is not one of data availability. On the contrary, too much information is tied into the denominator and there is no universally accepted criteria for what the term "eligible" encompasses.

Each service has a myriad of reenlistment "eligibility codes" which not only reflect whether an individual is "currently" eligible to reenlist, but if the individual will ever be eligible to reenlist. The problems that arise in coming up with an acceptable definition of the reenlistment rate propels the task beyond the scope of this effort; however, a dichotomy in the purposes for which this ratio is

used became clearly evident and is included primarily for documentation purposes.

The dichotomy exists because of the way reenlistment ratios are calculated. The numerator reflects the number of personnel who reenlisted during a specific period of time. The denominator encompasses more personnel than those who were actually eligible to reenlist during the same period of time. Personnel with eligibility codes which were qualified for reasons other than having fulfilled "time in service" or "time in current paygrade" requirements, are included. For the remainder of this discussion, "qualified eligibility" will refer to factors which preclude reenlistment for reasons other than these standardized preconditions.

The definitive reenlistment eligibility of personnel who had the option to reenlist during a period of time, should be separated from the general eligibility categorizations made within the coding systems currently used by the services. The use of two distinct ratios in this case may well yield clearer, more useful information if calculated and interpreted as discussed below.

A. NEW REENLISTMENT RATE

This rate should be calculated by dividing the number of personnel who reenlisted during a specific time period by the number of personnel who were eligible to reenlist during the same time period. This reenlistment rate should only reflect the number of personnel who are induced to recommit

to a military career, given their knowledge of the pay/benefit/quality-of-life packages offered by both the military and civilian job markets at that time. Whether the issue is the first reenlistment or the fourth reenlistment, this ratio would be a direct measure of the ability of the military to compel quality personnel to continue military service. The denominator should only include those personnel eligible to reenlist during the specific period of interest. Personnel with qualified reenlistment eligibility should not be included.

B. ELIGIBILITY RATIO

This statistic should be calculated by dividing the number of personnel who were not eligible for reenlistment during the period of interest by the total number of personnel in the enlisted force during that same period. This ratio should be used as an indicator of the long-term success of the recruiting system and the ability of entrance examinations to "weed out" personnel who are ultimately unsuited to extended military service. Because reenlistment eligibility is based on demand (or vacancy) driven requirements, short-term changes in those requirements should effect only the eligibility of the marginal performers.

As mentioned earlier, this dichotomy surfaced during preliminary thesis research and pursuit of more specifically defined recommendations was not within the scope of this

effort. A general review of the eligibility codes currently used by the services indicated that no change of codes should be necessary to compute the suggested ratios. However, because of the inconsistency in reenlistment rates as currently calculated and interpreted, this statistic will not be further addressed in this thesis.

IV. THE DATA

This chapter will accomplish the following:

a. describe the source and nature of the data used in this thesis;

b. explain the data manipulation required to transform the Enlisted Transition Matrix into the format previously used for OMB analysis; and

c. describe the mathematical processes required for formulation of the statistics and the general interpretation of those statistics. [Ref. 2]

The tabular results of these processes are located at Appendix A.

A. SOURCE, CHARACTERISTICS, AND DATA MANIPULATION

The data used in this thesis were taken from Enlisted Transition Matrices for DOD, the Army, Navy, Air Force, and Marine Corps for each fiscal year from 1974-1987. The Defense Manpower Data Center (DMDC) updates the matrices based on data received from the services, which are stored in DMDC's "Active Duty Military Personnel File."

Matrix information is read from the file by taking a "snapshot" of "length of service" and "remaining length of current enlistment" data from each record in the enlisted force at the beginning of a specific year. That information is then compared with a snapshot of the force at the end of the same year. Social security numbers are matched between the snapshots to determine how many enlisted personnel, who

were in the force at the beginning of the year, remained in the force at the end of that same year.

Within each matrix, the enlisted force is broken down into year-of-service (YOS) categories representing the number of individuals having a specific number of years of service at the time the snapshot is taken. The "1 YOS" category includes all individuals who had less than or equal to one YOS at the time the snapshot was taken. The "2 YOS" category includes everyone who had more than one YOS but less than two YOS.

The Enlisted Transition "Matrix" actually consists of four individual matrices. To avoid confusion, the individual sections of the Enlisted Transition Matrix will be referred to as "tables." These tables are defined and formatted as follows.

1. Base Number Table

The Base Numbers represent the "beginning stock" in each YOS category for a given year. The information in this table is based on the snapshot that is taken at the beginning of the year. Each YOS category is broken down into sub-categories representing the number of months remaining to Estimated Termination of Service (ETS).

Table 1 shows the format of the Base Number Table with selected cells filled in. Interpretation of how these Base Numbers should be interpreted immediately follows the Table. It must be emphasized at this point that transition

TABLE 1

BASE NUMBER TABLE FORMAT

FY__ ENLISTED PERSONNEL TRANSITION MATRIX REPORT
ACTIVE DUTY ENLISTED PERSONNEL BY SERVICE, YEARS OF SERVICE,
AND MONTHS TO ETS TIME 1 SERVICE: _____

BASE NO. <-<-<-<-<-<-<-<- MONTHS TO ETS TIME 1 ->->->->->->->->							
YOS	UNK	<13	13-24	25-36	37-48	49-60	>60	TOTAL
1								A(310)
2				B(200)				
3								
4		C(400)						D(1000)
.								
30+								
1-4								
5-12								
13-19								
20-30+								
5-30								
UNKNOWN								
GRAND TOTAL								

analysis for any given year must begin with the first snapshot of the year which results in these Base Numbers. Block A contains the 310 people who had up to one YOS at the beginning of the year. The 200 personnel represented in Block B had two YOS and 25-36 months to ETS at the beginning of the year. Also at the beginning of the year, there were 400 personnel who had four YOS and had less than 13 months to ETS (Block C). And finally, Block D represents the 1000 personnel who had four YOS at the beginning of the year.

2. Continuation Number Table

The information in this table comes from comparing the beginning-of-the-year snapshot with the end-of-the-year snapshot. These numbers reflect the personnel in each YOS

category at the beginning of the year, who remained in the force at the end of the same year. The difference between the Base Number and the corresponding Continuation Number is the Number of Losses that occurred during that year.

Table 2 shows the format of the Continuation Number Table. Selected cells are filled in for demonstration purposes and a number of amplifying notes and appropriate interpretations follow the table.

TABLE 2

CONTINUATION NUMBER TABLE FORMAT

FY__ ENLISTED PERSONNEL TRANSITION MATRIX REPORT

ACTIVE DUTY ENLISTED PERSONNEL BY SERVICE,
YEARS OF SERVICE, ETS TIME 1, AND ETS TIME 2
SERVICE: _____

CONT NUMBER MO.S TO ETS	<-<-<-<-<-<- MONTHS TO ETS TIME 1 ->->->->->->							
YOS	TIME 2	UNK	<13	13-24	25-36	37-48	49-60	>60	TOTAL
1									
2									
3									
4	UK/NCHNG								
	<13								E(210)
	13-24								
	25-36								
	37-48								
	49-60								
	> 60								
	TOTAL								F(800)

Notes:

(a) The same format is used for each YOS and aggregated YOS category. The "4 YOS" category is used above to demonstrate the interrelationship between the tables in the Matrix and to correspond with the numbers used in the Base Number Table.

(b) There are eight lines of data for each YOS category in the Continuation table, vice one line of data per YOS category in the Base Number table.

Block E signifies that of the 400 personnel who had four YOS and less than 13 months to ETS at the beginning of the year (Block C in the Base Number Table), 210 remained in the force at the end of the year. In other words, 180 of the original 400 personnel did not continue. They constitute the losses from this category for the year. Block F represents the fact that of the 1000 personnel who had four YOS at the beginning of the year (Block D in Table 1), 800 remained in the force at the end of the year. In other words, there were a total of 200 personnel lost during the year (180 from the "<13 mos. to ETS" category and 20 additional personnel, who must have had more than 13 months to ETS).

3. Continuation Rate Table

The Continuation Rate Table represents the percentage of personnel in each YOS category at the beginning of the year who remained in the force at the end of that year. This table is displayed in the same format as the Continuation Number Table.

4. Cell Distribution Table

The Cell Distribution Table indicates the percentage of each "ETS Time 1" category that remained in that same category at "ETS Time 2." These data were not utilized by OMB and therefore, will not be further discussed in this thesis.

Excerpts of the DOD Enlisted Transition Matrix for fiscal year 1987 are located at Appendix B to serve as an example of the matrix format described above.

B. STATISTICAL FORMULATION AND INTERPRETATION

The data received from DMDC included aggregated YOS groups as follows: 1-4 YOS, 5-10 YOS, 11-15 YOS, 16-19 YOS, 20-30 YOS, and 5-30 YOS (See Table B-I). The YOS groupings used by OMB combine these categories into aggregations which are more consistent with the changes in an individual's propensity to reenlist. The OMB year-of-service groups are: 1-4 YOS representing "first-termers"; 5-12 YOS symbolizing "mid-careerists"; 13-19 YOS and 20-30 YOS which typify the "senior careerists." An additional aggregation, the "5-30 YOS" group represents the "career force."

In order to conform with the OMB aggregations and allow for comparative analysis, the following procedures were necessary to extract the data from each of the 14 Enlisted Transition Matrices (1974-1987).

1. Continuation Statistics

Base numbers for each YOS category were taken from the TOTAL column of the Base Number Matrix (beginning at Block D in Table 1) to represent the "BEGINNING STRENGTH" (initial stock) in that YOS category at the beginning of the year. These numbers were then summed to yield the desired aggregate categories.

Continuation numbers were taken from the Continuation Number Matrix (Block E in Table 2) to represent the number of individuals in each YOS category who remained in the force at the end of the year ("NO. CONTINUING"). "NO. CONTINUING" was subtracted from BEGINNING STRENGTH, to calculate the "NO. OF LOSSES". Then the NO. CONTINUING was divided by the BEGINNING STRENGTH to determine the "CONTINUATION RATE." Using DOD numbers for FY87 as an example, these data were put into the following format for each service and YOS category.

CONTINUATION OF DOD ENLISTED PERSONNEL
(FY87)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30
1987				
BEGINNING STRENGTH	932,015	598,772	233,259	79,145
NO. OF LOSSES	178,487	67,835	5,971	23,803
NO. CONTINUING	753,528	530,937	227,288	55,342
CONTINUATION RATE	81	89	97	70

The Continuation Rate is "supply oriented" because it represents the number of people who chose to remain in the military during the period of interest. However, both the numerator and denominator are dependent on the reenlistment (demand) criteria controlled by the individual services. Despite this inconsistency, the Continuation rate is a more reliable indicator than the "Reenlistment Rate" (discussed at length in Chapter III) because both the numerator and denominator are clearly defined and easily accessible quantities, and the effects of changes in demand are tempered by the majority of personnel in each YOS group

having enlistment obligations that extend beyond the end of the fiscal year being looked at.

2. Retention Statistics

The number in the "< 13 MOS AT BOY"[1] column was taken from the Base Number Table (Block C from Table 1). The corresponding number from the "< 13 MOS AT BOY" column of the Continuation Number Matrix (Block E from Table 2) was then taken for each YOS category. The Continuation Number was divided by the Base Number to yield the Retention Rate.

For the Army in FY87, the format of this statistic looked as follows:

RETENTION OF ARMY ENLISTED PERSONNEL
(FY87)
*BOY = Beginning of the Fiscal Year.

YOS	1-4	5-12	13-19	20-30+	5-30	TOTAL
FY 1984						
<13 MOS AT BOY	86,784	42,258	11,212	6,238	59,708	146,492
RETENTION NUMBER	28,237	27,316	9,921	2,484	39,721	67,958
RETENTION RATE	33	65	88	40	67	46

The Retention Rate is much more sensitive to the supply oriented considerations related to whether personnel were induced to recommit to a military career. These individuals had the option to leave the military (attrite) and did not. They reenlisted outright, or extended in anticipation of reenlistment in the near future.

[1]"BOY" stands for Beginning of the Year.

3. Experience Distribution

Base Numbers for each YOS category were taken from the Base Number table and summed appropriately to yield the beginning stock or "NUMBER" of personnel in the desired aggregate groups. Analysis of the Experience Distribution of the individual YOS categories did not reveal more enlightening information than the trends exhibited by the aggregated statistics; therefore, analysis of individual YOS categories will not be included in the remainder of this thesis.

The NUMBERs for each aggregated group were summed to the TOTAL, representing the size of the enlisted force for that year. This provided an inherent cross-check of the data with the original table. Each aggregated group NUMBER was then divided by the TOTAL to yield the percentage of the total force represented by each aggregated group. For DOD in FY87, this statistic was formatted as follows:

EXPERIENCE DISTRIBUTION
DOD (FY87)

FY	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1987						
NUMBER	932,015	598,772	233,259	79,145	911,176	1,843,191
% OF ENL	51	32	13	4	49	100

Note: While the 5-30 YOS aggregation is located to the left of TOTAL, the 5-30 numbers were not added into the TOTAL.

The Experience Distribution is a clear-cut, quantitative measure of the relative size of each aggregated YOS group within the enlisted force of each service. This distribution yields a realistic, reliable profile of how

much experience is being retained, or conversely, being lost.

4. Weighted Average Years of Service

The Weighted Average Years of Service (WAYOS) is the average number of years enlisted personnel remain within the enlisted force. The BEGINNING STRENGTH for each YOS category was multiplied by the number of years of service represented by that category. For example, if the number of personnel in the 3 YOS category was 240,555, that number was multiplied by three which resulting in 721,665. This was done for each individual YOS category. The resultant numbers were totalled and divided by the total number of personnel in the force for that year to yield the WAYOS.

The WAYOS carries with it two specific conditions. First, the number of individuals with "unknown" YOS is insignificant and therefore not counted. Second, the number of personnel with more than 30 YOS is also relatively small. These individuals are counted as having 30 YOS.

The WAYOS is a simple average which is easily influenced by force structure. For example, the WAYOS for the Marine Corps is smaller than the average for other services because the Marine Corps is structured with many more junior enlisted personnel per supervisor than the other services. With many personnel having lower accumulated YOS and fewer personnel with more experience and accumulated YOS, the WAYOS for the Corps should be lower.

This indicator is a good measure of a service's ability to retain the experienced personnel it needs when compared with historical data on the same service. It is not useful for relative interservice comparison because of the structure oriented bias.

5. End Strength

This statistic represents the total size of the force for any given year, either as a whole, or broken up by YOS group. It is a purely quantitative indicator. Supply and demand define the nature of these numbers.

Complete Continuation, Retention, Experience Distribution, and Weighted Average YOS tables are located at Appendix A. End strength statistics were extracted from these tables.

The data have now been formatted and formulated into a statistical characterization of the enlisted forces from 1974-1987. The next step is to identify the trends in these data.

V. THE TRENDS

In this chapter, common historical reference points are established. Also, the statistics calculated in Chapter III are graphed to profile the enlisted force for each service and for the Department of Defense from 1974-1987. The analytical commentary will focus on the 1984-1987 time period.

A. REFERENCE POINTS

The following economic and demographic milestones were identified to provide common reference points for discussing the trends that resulted from the statistics calculated during this research:

a. All Volunteer Force (AVF)--began in 1973;

b. National Unemployment (see Figure 1):

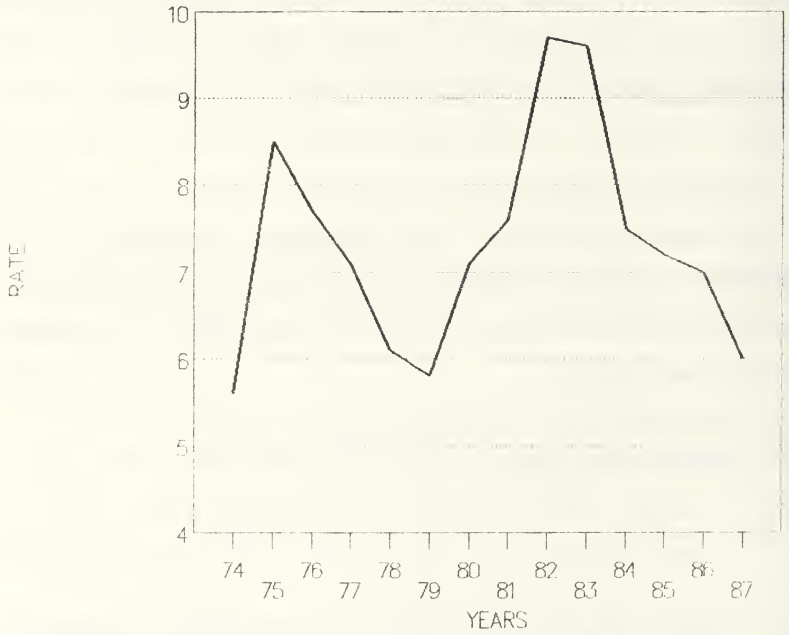
- dropped from 8.5% in 1975 to 5.8% in 1979;
- rose after 1979 to 9.7% in 1982 and 9.6% in 1983, before returning to the 6-7% range of the 1970s;

c. Recruit Quality and Retention of Experienced Personnel (measured by average Armed Forces Qualification Test (AFQT) scores and the number of high school graduates):

- dropped significantly from 1976-1979;
- rose consistently after 1980 [Ref 1:Chapter II];

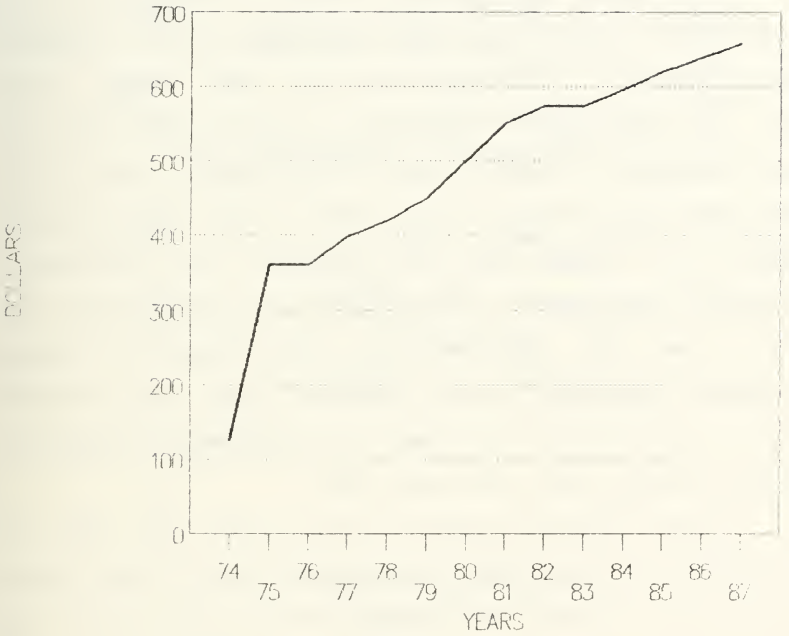
d. Military Base Pay (see Figure 2):

- 1 October 1980 and 1 October 1981, DOD responded to the decline in recruit quality and retention by



Source: Statistical Abstract of the United States, 1974-1988, Bureau of the Census, U.S. Dept. of Commerce.

Figure 1. National Unemployment Rate



Source: Statistical Abstract of the United States, 1974-1988, Bureau of the Census, U.S. Dept. of Commerce.

Figure 2. Military Base Pay (Monthly Rate for E-1)

increasing military compensation levels a total of 30%;

- minor increases continued through 1987.

B. THE PROFILES

1. Continuation Rate (see Figures 3-7)

The first characteristic that is evident in the continuation rate for each service is the uniform stratification of the year-of-service (YOS) groups. The group with the highest continuation rate is the 13-19 YOS group, followed in order by the 5-12 YOS group, the 1-4 YOS group and finally the 20-30 YOS group. This stratification supports the findings of many researchers that, once past the second reenlistment, the probability of continuing to 20 years is very high. The YOS groups were divided at 12 years to capture the purest effect possible, given the fact that many of the technical ratings have enlistment obligations that are greater than four years each.

The relative sensitivity of the 1-4 YOS to reenlistment criteria and the susceptibility of the 20-30 YOS group to the pull of the high employment rate of the mid-1980s is shown in the more unstable profiles of these groups. Each of the services and the aggregated DOD profile show relative stability throughout the force. One of the findings of this thesis, which will be discussed in greater detail in Chapter VI is the fact that from 1984-1987 all of the services managed their enlisted forces very closely,

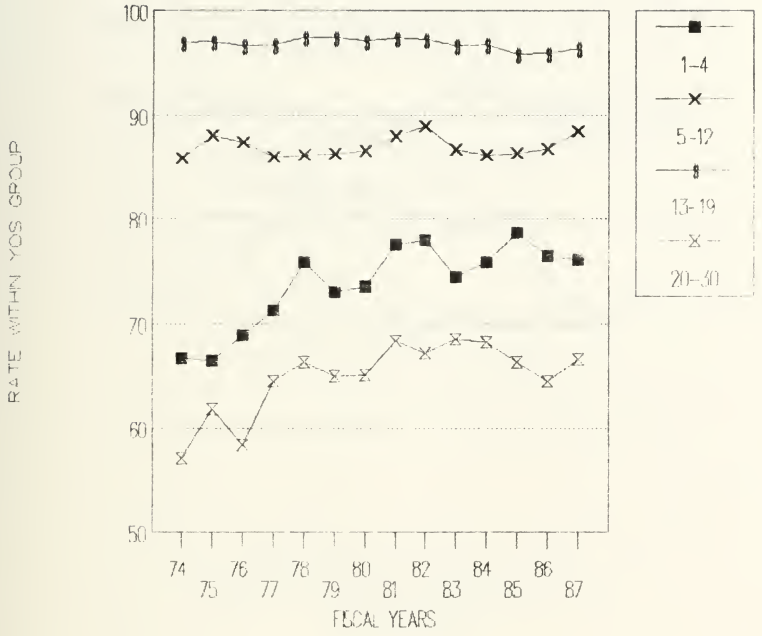


Figure 3. Army Continuation Rates
(by YOS Group)

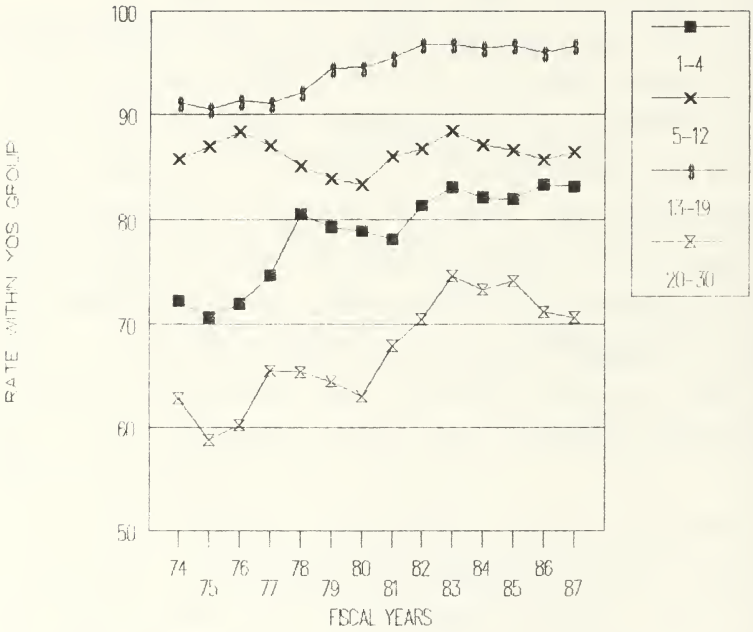


Figure 4. Navy Continuation Rates (by YOS Group)

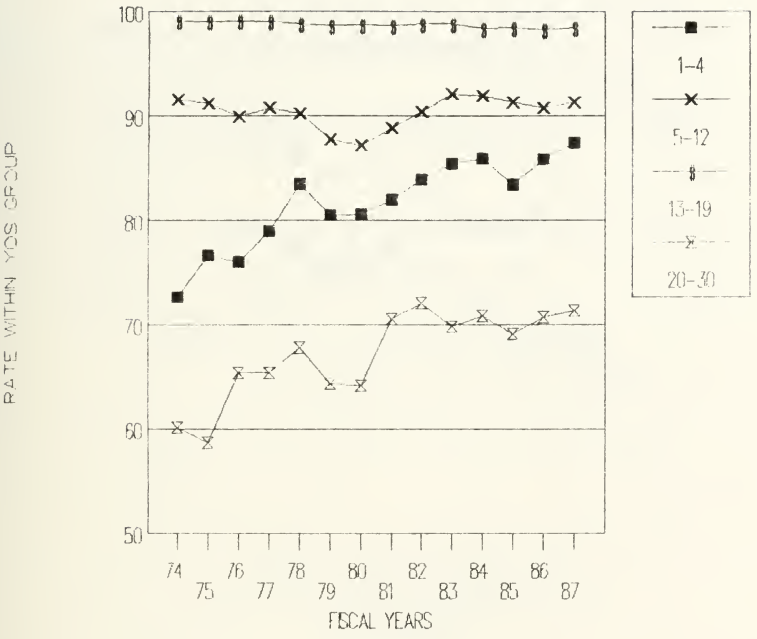


Figure 5. Air Force Continuation Rates (by YOS Group)

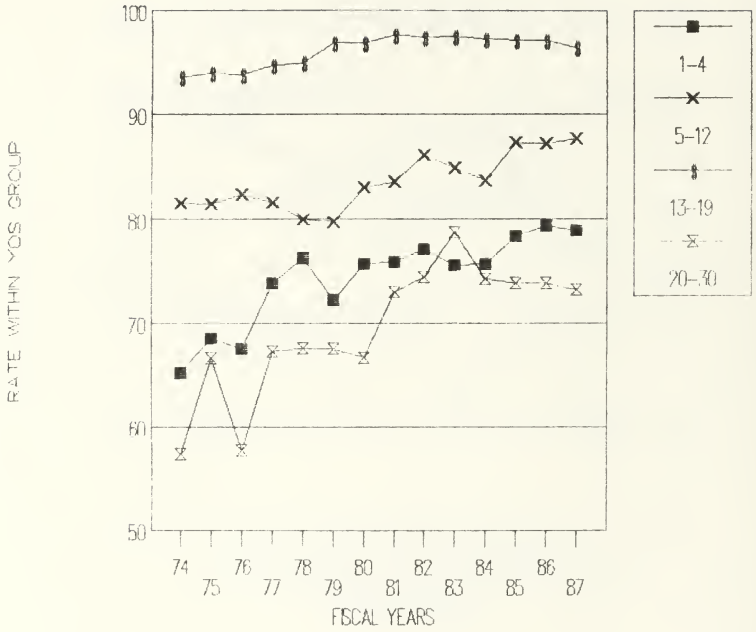


Figure 6. Marine Corps Continuation Rates (by YOS Group)

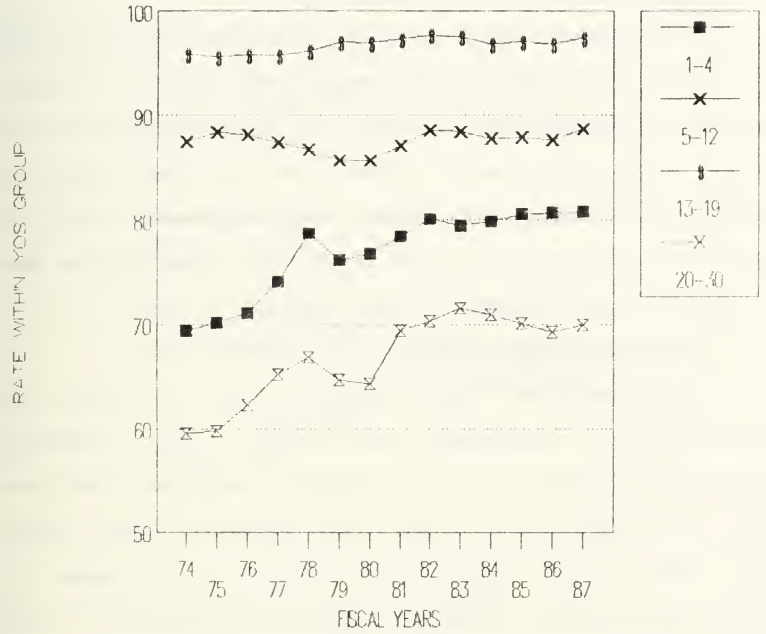


Figure 7. DOD Continuation Rates
(by YOS Group)

making changes to reenlistment programs, SRB multiples, and "early out" options in order to tailor the service to meet its operational needs. Statistics aggregated to the YOS level are not affected by these extremely important changes to the demand for enlisted forces.

2. Retention Rate (see Figures 8-11)

The Retention Rate profiles are also stable through the 1984-1987 time frame. The demand needs of the services, supported by marginal pay raises and increasing SRB bonus payments, have been able to offset the continued downswing in the civilian unemployment rate. The decreases in the 1-4 YOS and 20-30 YOS groups again show that these groups are susceptible to improvements in the civilian market.

3. Experience Distribution (see Figures 12-21)

The Experience Distribution of every service has remained level or improved since 1984. This indicator dramatically supports the fact that the services have been able to stem the loss of experienced personnel which began in the late 1970s, despite the consistent decrease in civilian unemployment. When the number of personnel in each service is plotted against the YOS distribution of those forces (Figures 13, 15, 17, 19, and 21) the 1984 and 1987 profiles are almost identical.

This statistic is also effected by the "across-the-board" nature of the data used in this thesis. The Experience Distribution reflects the mean experience level

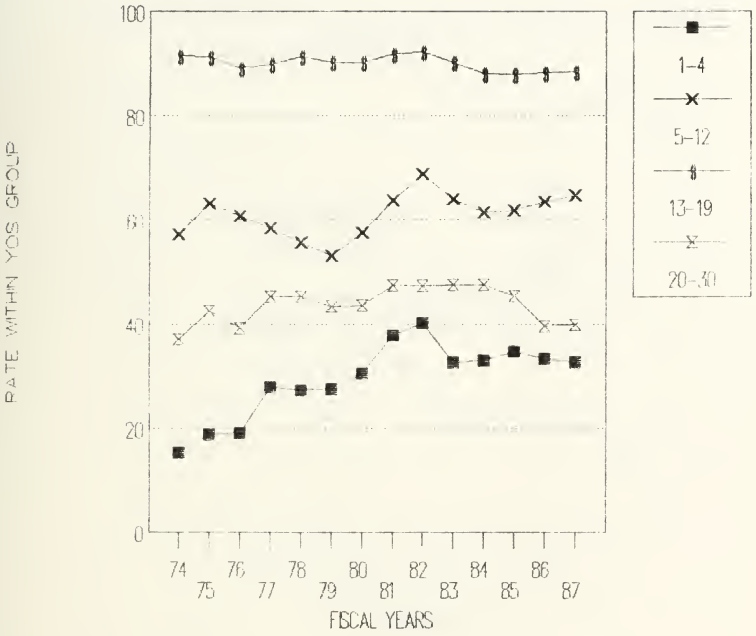


Figure 8. Army Retention Rates
(by YOS Group)

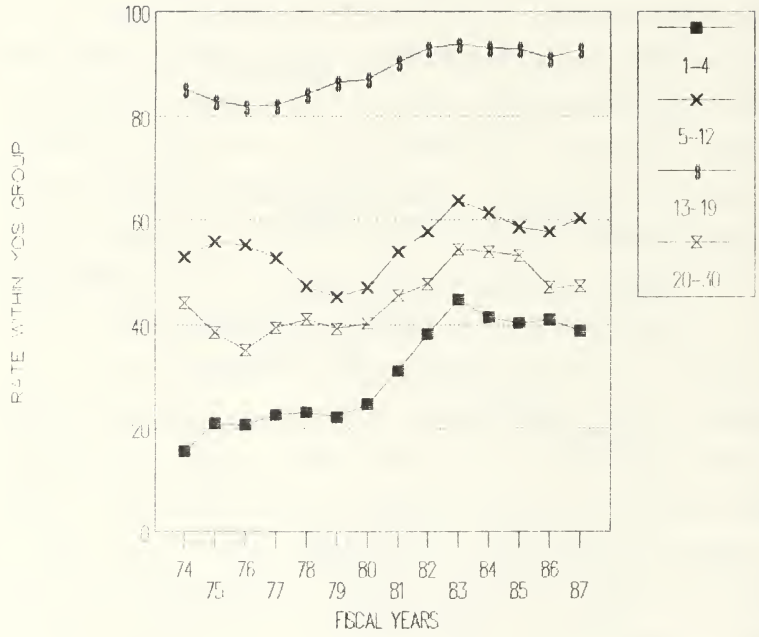


Figure 9. Navy Retention Rates (by YOS Group)

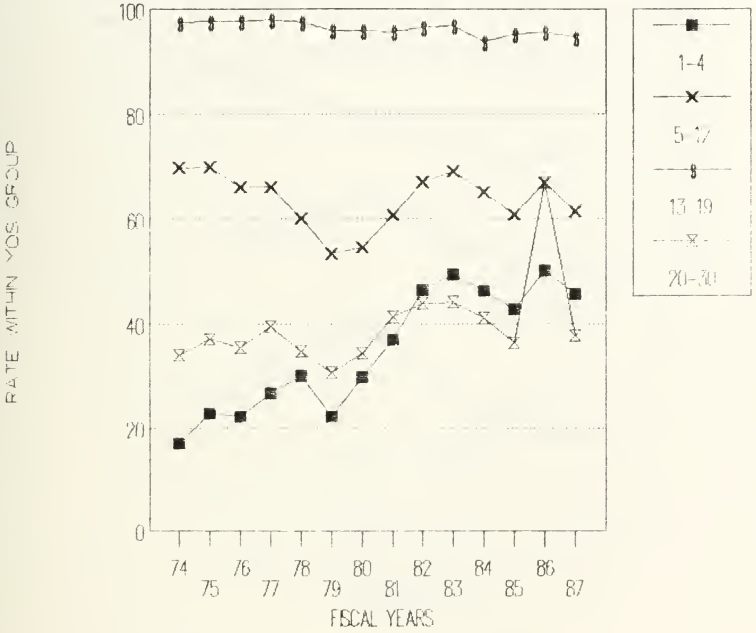


Figure 10. Air Force Retention Rates (by YOS Group)

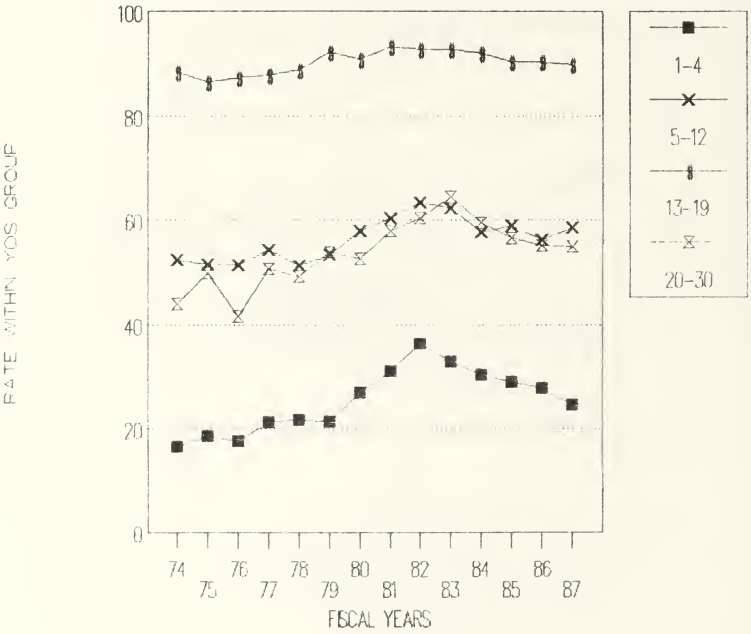


Figure 11. Marine Corps Retention Rates (by YOS Group)

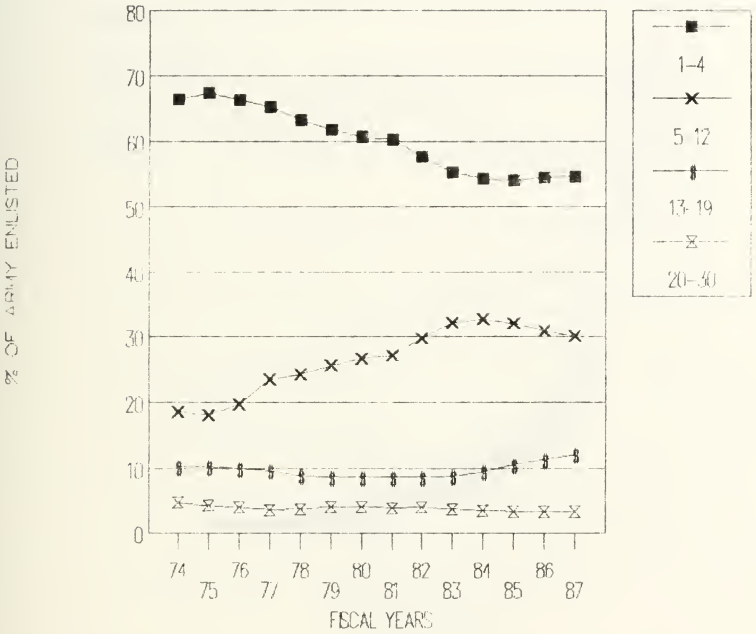


Figure 12. Army Experience Distribution (by YOS Group)

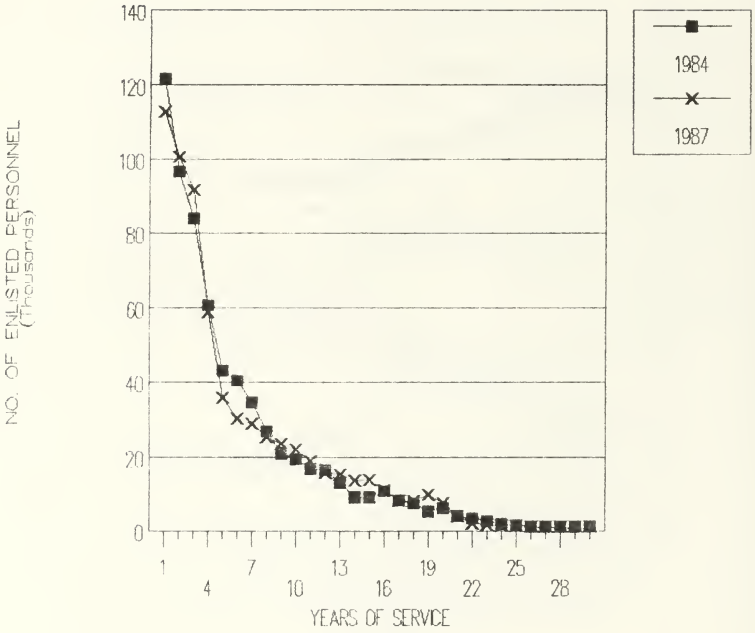


Figure 13. Army Experience Distribution (Comparison by Individual YOS Group Size)

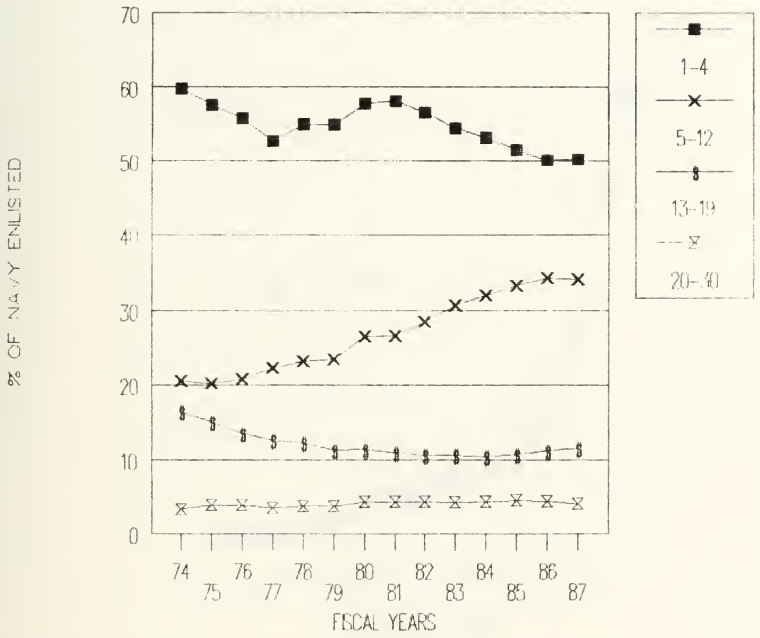


Figure 14. Navy Experience Distribution (by YOS Group)

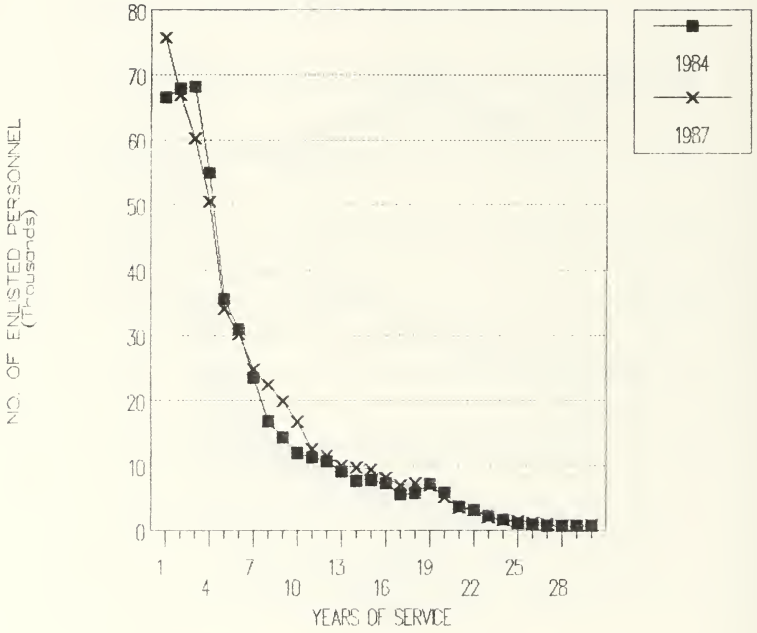


Figure 15. Navy Experience Distribution (Comparison by Individual YOS Group Size)

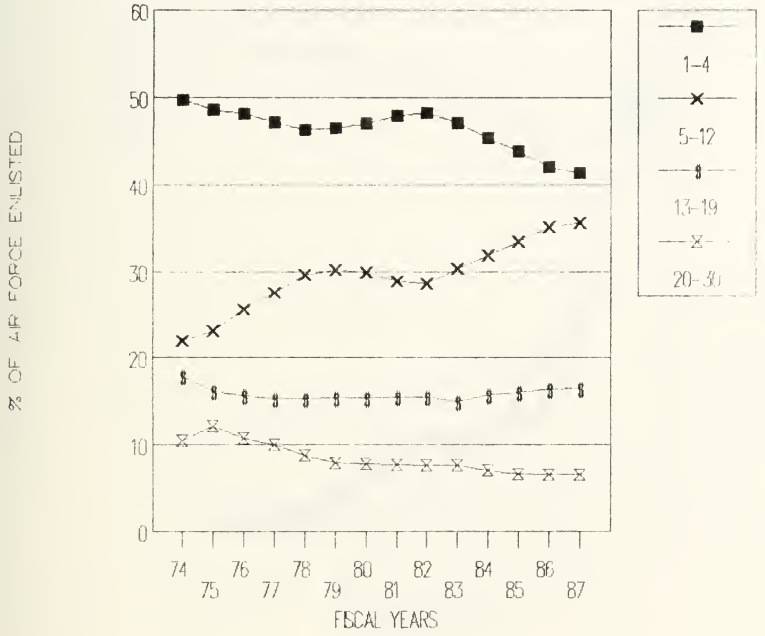


Figure 16. Air Force Experience Distribution (by YOS Group)

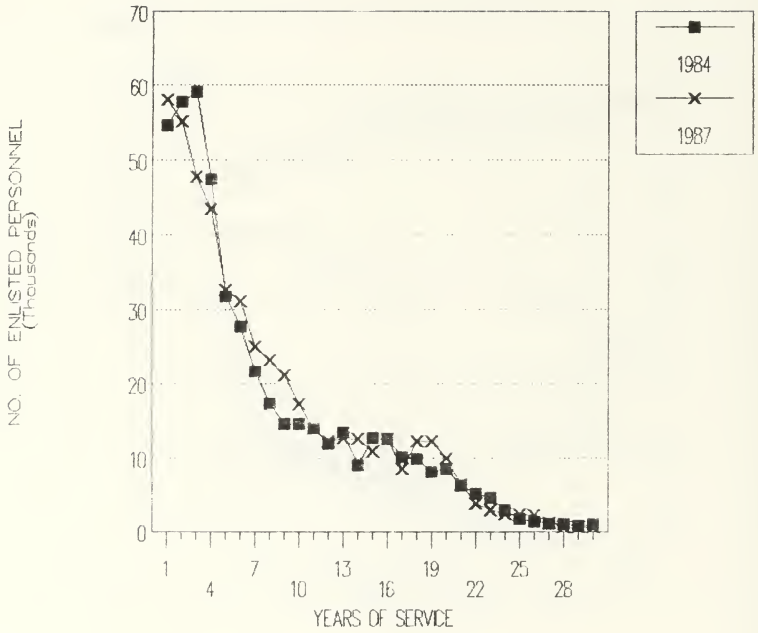


Figure 17. Air Force Experience Distribution
(Comparison by Individual YOS Group Size)

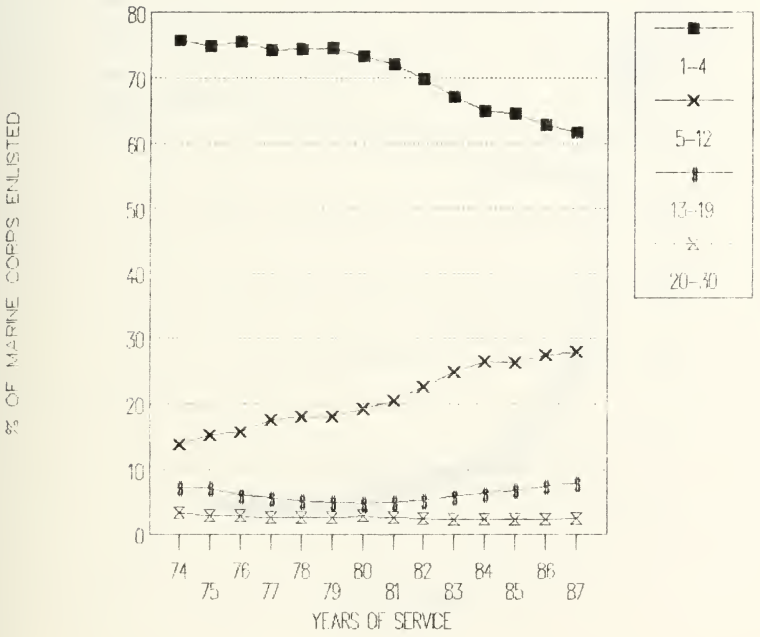


Figure 18. Marine Corps Experience Distribution (by YOS Group)

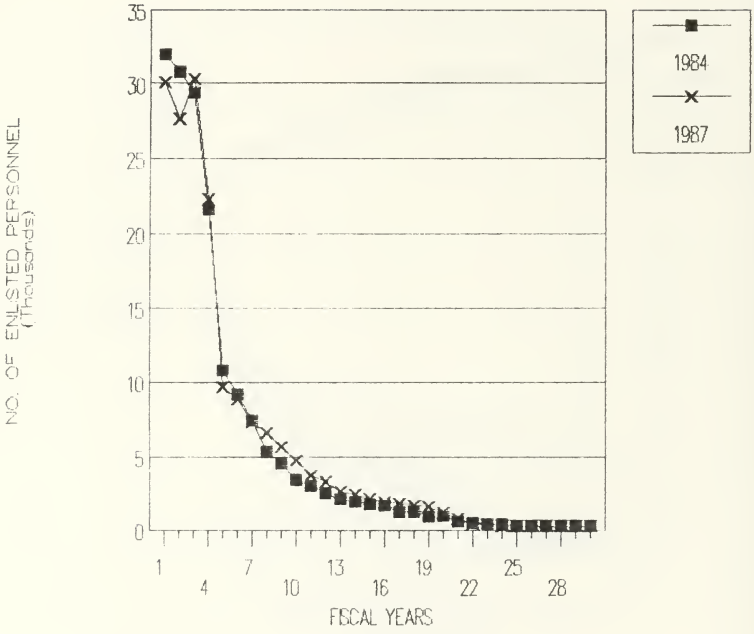


Figure 19. Marine Corps Experience Distribution
(Comparison by Individual YOS Group Size)

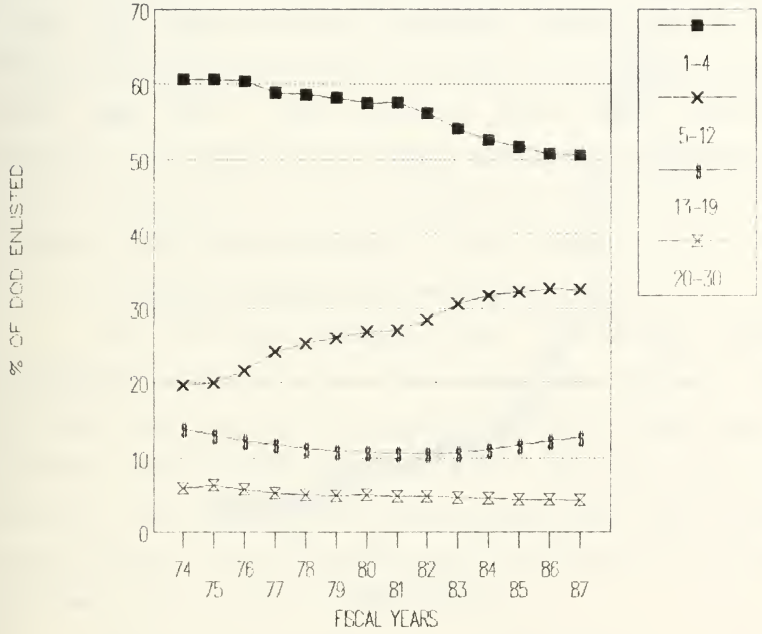


Figure 20. DOD Experience Distribution (by YOS Group)

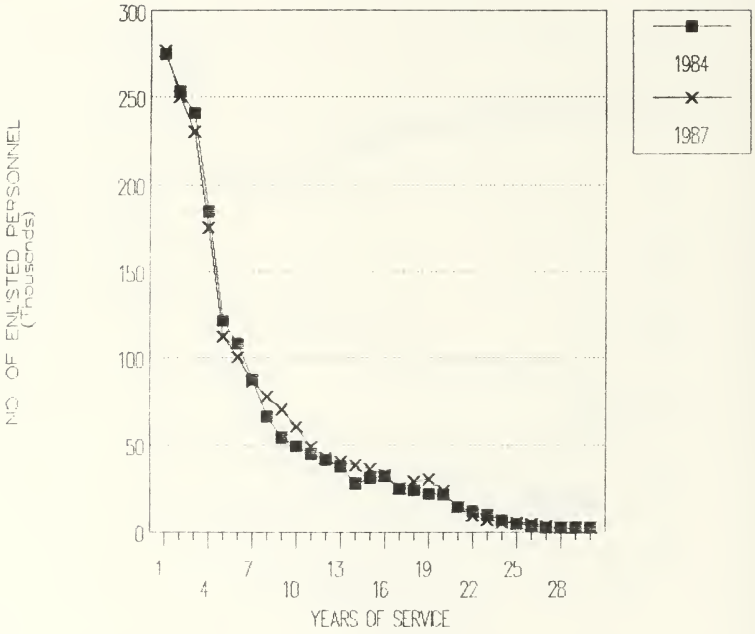


Figure 21. DOD Experience Distribution (Comparison by Individual YOS Group Size)

of the force and must be interpreted accordingly. It does the services very little good to retain the majority of the more generally oriented occupations, if technically skilled personnel are being lost. As noted in Chapter II, the research conducted by Marcus [Ref. 7] indicates that the effects of a strong civilian economy will have the greatest impact on highly skilled personnel within the military. Numbers aggregated to the level used in this thesis did not show this loss. The loss of these highly qualified personnel is offset by the number of marginal personnel who would not be able to get a comparable job in the civilian community and therefore remain in the service.

4. Weighted Average YOS (see Figures 22-26)

The Weighted Average Years of Service (WAYOS) increased consistently over the period of interest. This provides more compelling support for the finding that the services have been successful at retaining personnel. However, the qualified optimism remains that these numbers relate to the force as a whole and do not address retention problems at the occupational level.

5. End Strength Profile (see Figures 27-31)

The End Strength Profiles reflect the most aggregated picture of the service's enlisted forces. Very little variation in the overall size of the forces is evidenced in numbers aggregated to this level.

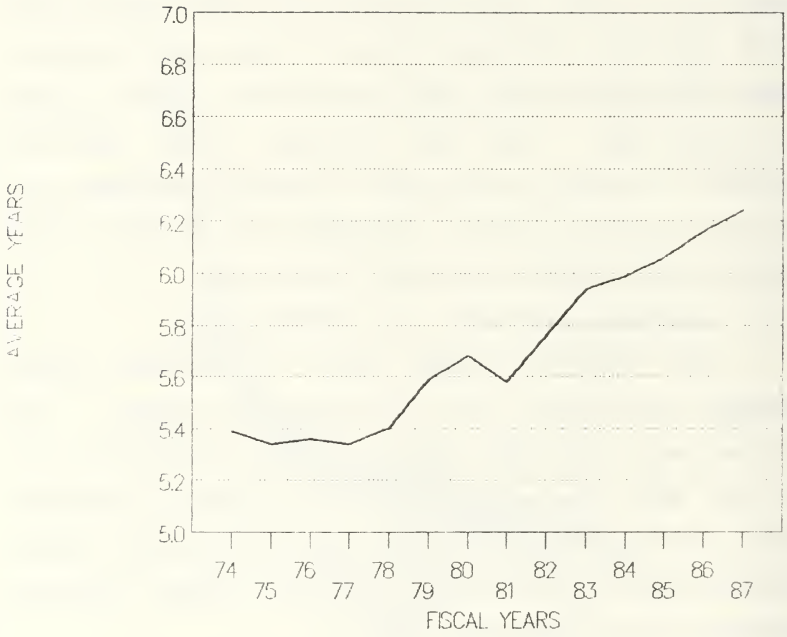


Figure 22. Army Weighted Average Years-of-Service

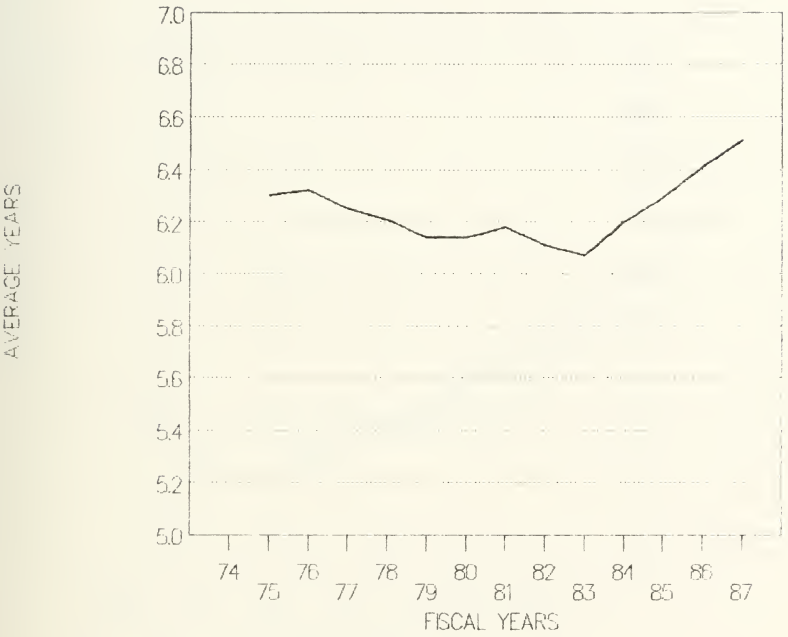


Figure 23. Navy Weighted Average Years-of-Service

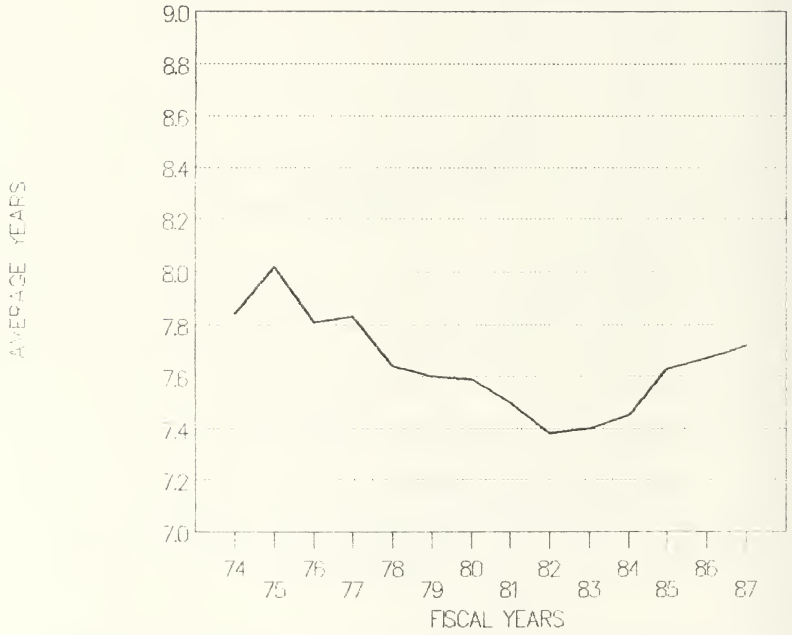


Figure 24. Air Force Weighted Average Years-of-Service

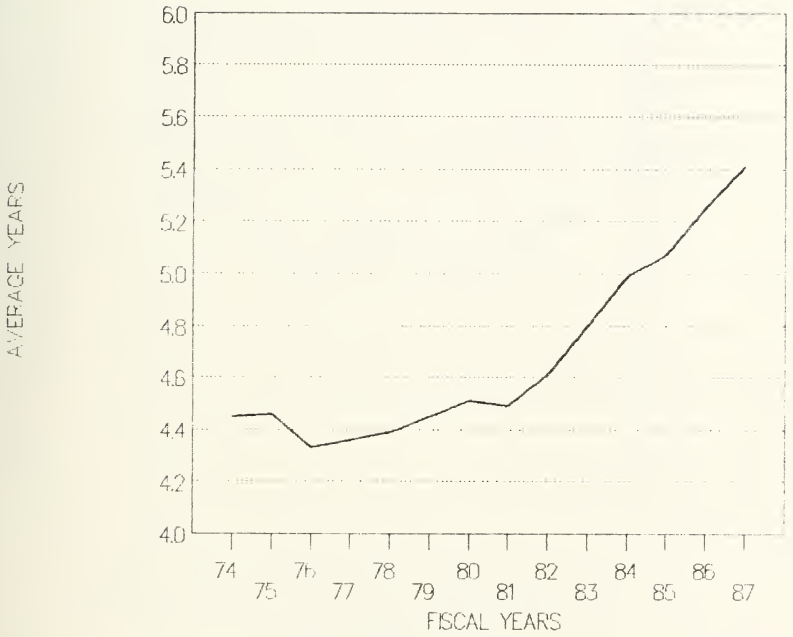


Figure 25. Marine Corps Weighted Average Years-of-Service

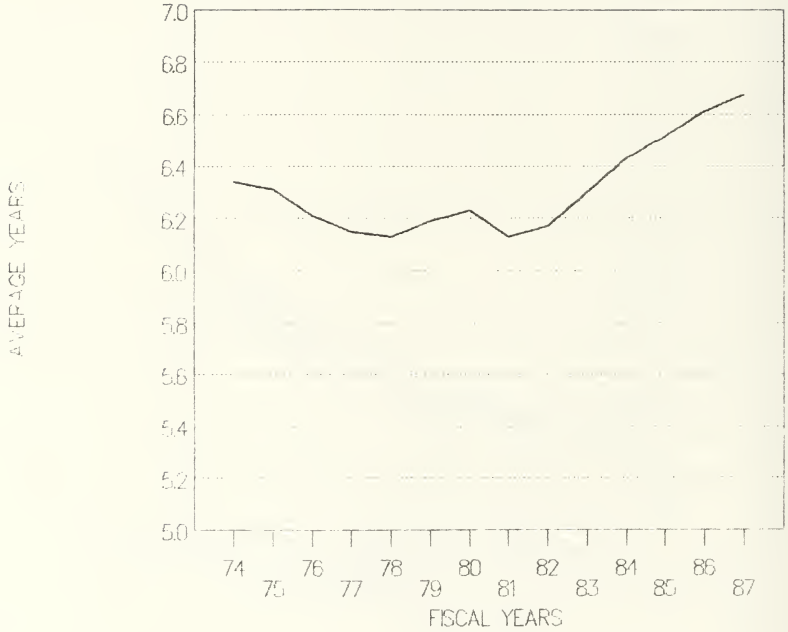


Figure 26. DOD Weighted Average Years-of-Service

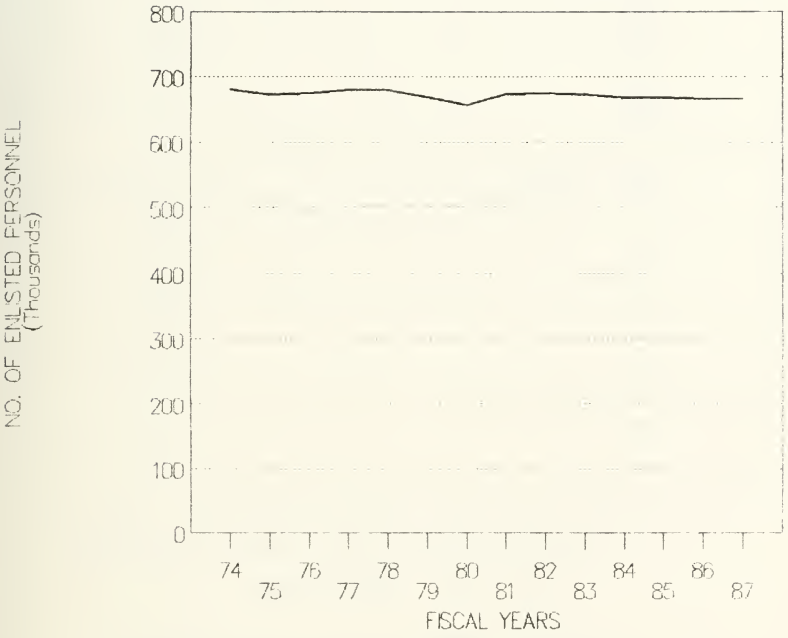


Figure 27. Army End Strength Profile

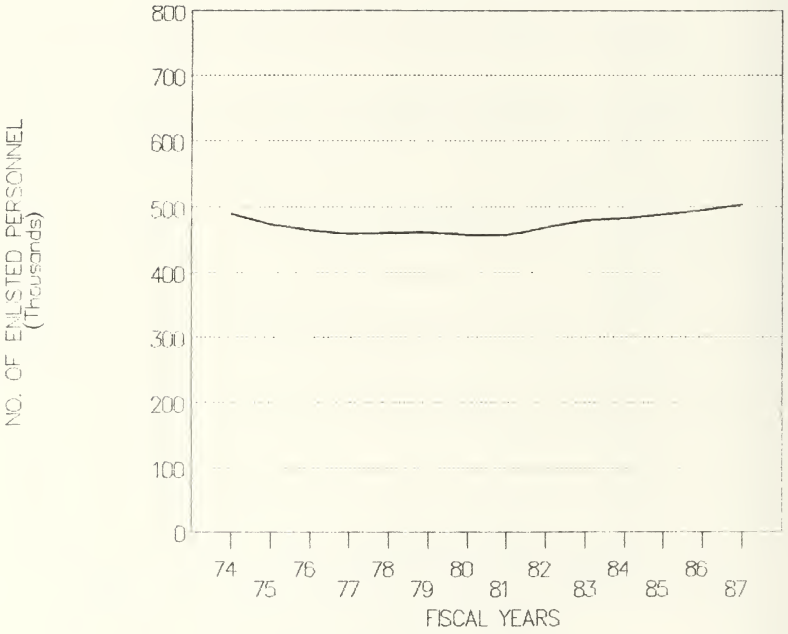


Figure 28. Navy End Strength Profile

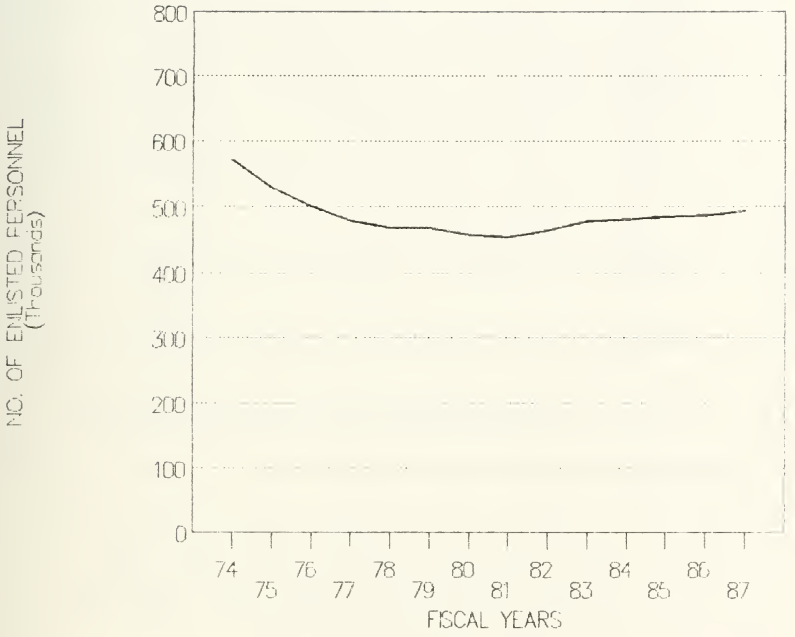


Figure 29. Air Force End Strength Profile

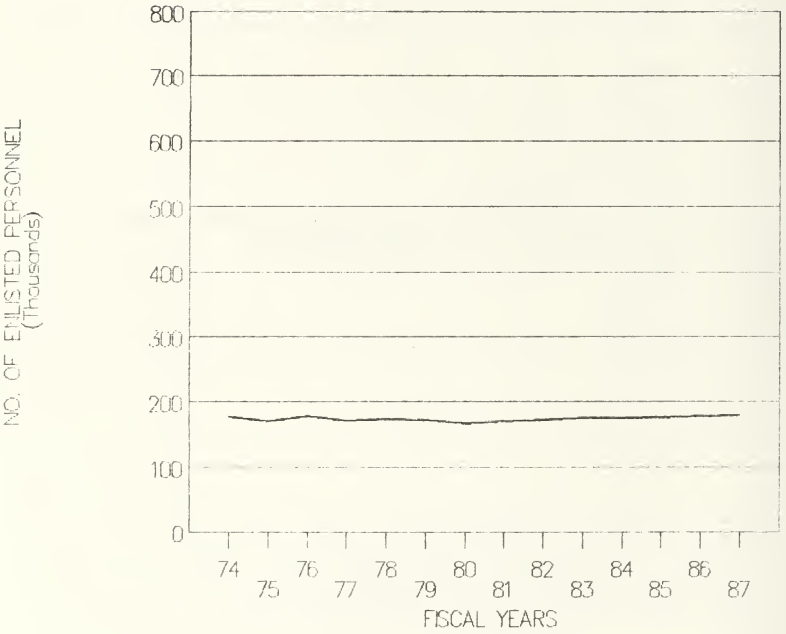


Figure 30. Marine Corps End Strength Profile

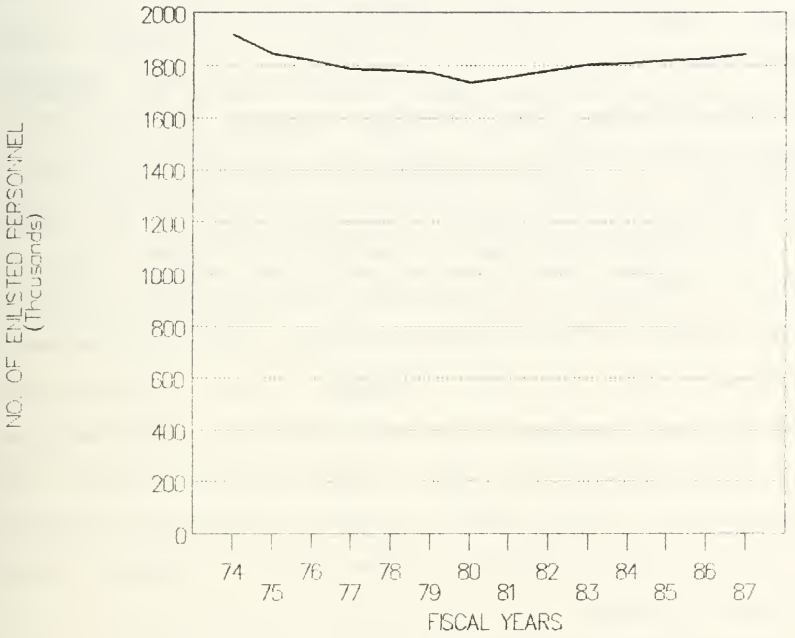


Figure 31. DOD End Strength Profile

VI. FINDINGS AND CONCLUSION

A. FINDINGS

The primary finding of this thesis is that analysis of numbers aggregated to the enlisted force level, or into YOS groups within a specific enlisted force, does not yield quantitative results. From 1984-1987 military manpower managers utilized the incentive programs and management tools at their disposal to help fill personnel requirements in occupational specialties which were experiencing chronic or situational shortages. "Early Out" programs were in effect to help the services tailor their enlisted forces to meet changing and/or expanding missions; SRB multiples were adjusted; and, in some instances, entire occupational specialties or subspecialties were added to, or deleted from the SRB eligibility list. But as this thesis has demonstrated, analysis that is based on aggregated data does not yield useful measures of the impact of demand driven incentive changes.

There were significant changes in the supply driven indicators examined in this thesis (e.g., the National Unemployment Rate and Military Base Pay) between 1984-1987. Again, the aggregated data did not reflect the impact of these changes.

The only secondary finding of this thesis is that the amount of effort required to produce analysis of data aggregated to the enlisted force or YOS group level is not justified by the generic nature of the results.

B. CONCLUSION

If an early warning system is to be developed to enable fast reaction to problems in enlisted force management, research and analysis must be focused at the level where the problems take place, within individual occupational specialties or groups of related specialties. Statistics based on enlisted transition numbers aggregated to any greater degree will not address the problem in the appropriate context.

APPENDIX A

STATISTICAL TABLES

This appendix contains the tabular results of the data manipulation and analysis that was conducted during the course of this research effort. The tables have been constructed to conform with the format used by the Office of Management and Budget in previous analyses of the Enlisted Transition Matrix. The tables included in this section encompass the Continuation, Retention, Experience Distribution, and Weighted Average Years of Service (WAYOS) statistics which were discussed in Chapter V.B.

TABLE 9-I

CONTINUATION OF ARMY ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
BEGINNING STRENGTH	452,204	125,940	70,071	32,480	228,491	680,695
NO. OF LOSSES	150,436	17,804	2,167	13,916	33,887	184,323
NO. CONTINUING	301,768	108,136	67,904	18,564	194,604	496,372
CONTINUATION RATE	67	86	97	57	85	73
1975						
BEGINNING STRENGTH	453,292	121,527	69,197	28,967	219,691	672,983
NO. OF LOSSES	151,904	14,474	2,094	11,047	27,615	179,519
NO. CONTINUING	301,388	107,053	67,103	17,920	192,076	493,464
CONTINUATION RATE	66	88	97	62	87	73
1976						
BEGINNING STRENGTH	448,013	132,936	67,268	26,926	227,130	675,143
NO. OF LOSSES	139,326	16,767	2,252	11,196	30,215	169,541
NO. CONTINUING	308,687	116,169	65,016	15,730	196,915	505,602
CONTINUATION RATE	69	87	97	58	87	75
1977						
BEGINNING STRENGTH	434,840	156,257	64,199	23,912	244,368	679,208
NO. OF LOSSES	124,927	21,938	2,132	8,492	32,562	157,489
NO. CONTINUING	309,913	134,319	62,067	15,420	211,806	521,719
CONTINUATION RATE	71	86	97	64	87	77
1978						
BEGINNING STRENGTH	429,318	164,813	60,148	25,012	249,973	679,291
NO. OF LOSSES	103,761	22,798	1,551	8,416	32,765	136,526
NO. CONTINUING	325,557	142,015	58,597	16,596	217,208	542,765
CONTINUATION RATE	76	86	97	66	87	80
1979						
BEGINNING STRENGTH	413,309	171,191	57,399	26,945	255,535	668,844
NO. OF LOSSES	111,730	23,511	1,478	9,440	34,429	146,159
NO. CONTINUING	301,579	147,680	55,921	17,505	221,106	522,685
CONTINUATION RATE	73	86	97	65	87	78

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-II

CONTINUATION OF ARMY ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
BEGINNING STRENGTH	398,372	175,066	56,460	26,607	258,133	656,505
NO. OF LOSSES	105,414	23,487	1,647	9,291	34,425	139,839
NO. CONTINUING	292,958	151,579	54,813	17,316	223,708	516,666
CONTINUATION RATE	74	87	97	65	87	79
1981						
BEGINNING STRENGTH	406,129	182,978	58,101	26,222	267,301	673,430
NO. OF LOSSES	91,415	21,921	1,547	8,307	31,775	123,190
NO. CONTINUING	314,714	161,057	56,554	17,915	235,526	550,240
CONTINUATION RATE	77	88	97	68	88	82
1982						
BEGINNING STRENGTH	389,698	200,432	57,840	26,659	284,931	674,629
NO. OF LOSSES	85,992	22,063	1,595	8,747	32,405	118,397
NO. CONTINUING	303,706	178,369	56,245	17,912	252,526	556,232
CONTINUATION RATE	78	89	97	67	89	82
1983						
BEGINNING STRENGTH	372,134	216,266	59,246	24,770	300,282	672,416
NO. OF LOSSES	95,115	28,789	1,997	7,795	38,581	133,696
NO. CONTINUING	277,019	187,477	57,249	16,975	261,701	538,720
CONTINUATION RATE	74	87	97	69	87	80

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-III

CONTINUATION OF ARMY ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
BEGINNING STRENGTH	362,927	218,766	63,162	23,347	305,275	668,202
NO. OF LOSSES	87,677	30,382	2,044	7,413	39,839	127,516
NO. CONTINUING	275,250	188,384	61,118	15,934	265,436	540,686
CONTINUATION RATE	76	86	97	68	87	81
1985						
BEGINNING STRENGTH	360,745	214,161	70,593	21,992	306,746	667,491
NO. OF LOSSES	77,053	29,252	2,918	7,393	39,563	116,616
NO. CONTINUING	283,692	184,909	67,675	14,599	267,183	550,875
CONTINUATION RATE	79	86	96	66	87	83
1986						
BEGINNING STRENGTH	363,266	205,732	75,192	21,797	302,781	666,047
NO. OF LOSSES	85,709	27,301	3,054	7,743	38,098	123,807
NO. CONTINUING	277,557	178,491	72,138	14,054	264,683	542,240
CONTINUATION RATE	76	87	96	64	87	81
1987						
BEGINNING STRENGTH	364,000	200,507	80,255	21,765	302,527	666,527
NO. OF LOSSES	87,039	23,075	2,878	7,267	33,220	120,259
NO. CONTINUING	276,961	177,432	77,377	14,498	269,307	546,268
CONTINUATION RATE	76	88	96	67	89	82

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-IV

CONTINUATION OF NAVY ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
BEGINNING STRENGTH	293,215	100,450	80,289	16,054	196,793	490,008
NO. OF LOSSES	81,495	14,284	7,107	5,963	27,359	108,854
NO. CONTINUING	211,720	86,166	73,182	10,086	169,434	381,154
CONTINUATION RATE	72	86	91	63	86	78
1975						
BEGINNING STRENGTH	292,114	99,061	73,820	19,090	191,971	474,085
NO. OF LOSSES	82,747	12,881	6,986	7,869	27,736	110,483
NO. CONTINUING	199,367	86,180	66,834	11,221	164,235	363,602
CONTINUATION RATE	71	87	91	59	86	77
1976						
BEGINNING STRENGTH	276,192	102,874	66,978	19,361	189,213	465,405
NO. OF LOSSES	77,671	11,937	5,795	7,709	25,441	103,112
NO. CONTINUING	198,521	90,937	61,183	11,652	163,772	362,293
CONTINUATION RATE	72	88	91	60	87	78
1977						
BEGINNING STRENGTH	265,764	112,478	63,492	17,614	193,584	459,348
NO. OF LOSSES	67,288	14,601	5,657	6,084	26,342	93,630
NO. CONTINUING	198,476	97,877	57,835	11,530	167,242	365,718
CONTINUATION RATE	75	87	91	65	86	80
1978						
BEGINNING STRENGTH	269,387	113,808	59,905	18,306	192,019	461,406
NO. OF LOSSES	52,467	16,961	4,736	6,349	28,046	80,513
NO. CONTINUING	216,920	96,847	55,169	11,957	163,973	380,893
CONTINUATION RATE	81	85	92	65	85	83
1979						
BEGINNING STRENGTH	271,642	116,160	55,845	18,356	190,361	462,003
NO. OF LOSSES	56,177	18,663	3,120	6,532	28,315	84,492
NO. CONTINUING	215,465	97,497	52,725	11,824	162,046	377,511
CONTINUATION RATE	79	84	94	64	85	82

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE 9-V

CONTINUATION OF NAVY ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
BEGINNING STRENGTH	263,704	121,246	51,751	19,626	192,623	456,327
NO. OF LOSSES	55,683	20,174	2,874	7,266	30,314	85,997
NO. CONTINUING	208,021	101,072	48,877	12,360	162,309	370,330
CONTINUATION RATE	79	83	94	63	84	81
1981						
BEGINNING STRENGTH	265,361	121,515	49,934	19,643	191,092	456,453
NO. OF LOSSES	58,006	16,993	2,285	6,307	25,585	83,591
NO. CONTINUING	207,355	104,522	47,649	13,336	165,507	372,862
CONTINUATION RATE	78	86	95	68	87	82
1982						
BEGINNING STRENGTH	265,540	133,626	49,555	20,368	203,549	469,089
NO. OF LOSSES	49,493	17,710	1,611	6,029	25,350	74,843
NO. CONTINUING	216,047	115,916	47,944	14,339	178,199	394,246
CONTINUATION RATE	81	87	97	70	88	84
1983						
BEGINNING STRENGTH	261,517	146,953	50,792	20,415	218,160	479,677
NO. OF LOSSES	44,147	16,960	1,633	5,180	23,773	67,920
NO. CONTINUING	217,370	129,993	49,159	15,235	194,387	411,757
CONTINUATION RATE	83	88	97	75	89	86

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-VI

CONTINUATION OF NAVY ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
BEGINNING STRENGTH	257,407	154,951	50,135	21,026	226,112	483,519
NO. OF LOSSES	45,920	20,001	1,808	5,613	27,422	73,342
NO. CONTINUING	211,487	134,950	48,327	15,413	198,690	410,177
CONTINUATION RATE	82	87	96	73	88	85
1985						
BEGINNING STRENGTH	252,456	163,172	52,025	22,208	237,405	489,861
NO. OF LOSSES	45,431	21,794	1,720	5,737	29,251	74,682
NO. CONTINUING	207,025	141,378	50,305	16,471	208,154	415,179
CONTINUATION RATE	82	87	97	74	88	85
1986						
BEGINNING STRENGTH	247,991	169,759	55,356	21,938	247,053	495,044
NO. OF LOSSES	41,276	24,200	2,216	6,341	32,757	74,033
NO. CONTINUING	206,715	145,559	53,140	15,597	214,296	421,011
CONTINUATION RATE	83	86	96	71	87	85
1987						
BEGINNING STRENGTH	253,337	172,131	58,159	20,734	251,024	504,361
NO. OF LOSSES	42,532	23,352	1,972	6,102	31,426	73,958
NO. CONTINUING	210,805	148,779	56,187	14,632	219,598	430,403
CONTINUATION RATE	83	86	97	71	87	85

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-VII

CONTINUATION OF AIR FORCE ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
BEGINNING STRENGTH	294,216	125,393	102,241	59,563	287,197	571,413
NO. OF LOSSES	77,768	10,570	912	23,741	35,223	112,991
NO. CONTINUING	206,448	114,823	101,329	35,822	251,974	458,422
CONTINUATION RATE	73	92	99	60	88	80
1975						
BEGINNING STRENGTH	257,198	122,084	85,379	63,953	271,416	528,614
NO. OF LOSSES	59,966	10,742	801	26,429	37,972	97,938
NO. CONTINUING	197,232	111,342	84,578	37,524	233,444	430,676
CONTINUATION RATE	77	91	99	59	86	81
1976						
BEGINNING STRENGTH	241,248	127,934	78,235	53,748	259,917	501,165
NO. OF LOSSES	57,919	12,834	677	18,623	32,134	90,053
NO. CONTINUING	183,329	115,100	77,558	35,125	227,783	411,112
CONTINUATION RATE	76	90	99	65	88	82
1977						
BEGINNING STRENGTH	226,154	132,038	73,335	47,886	253,259	479,413
NO. OF LOSSES	47,595	12,183	717	16,604	29,504	77,099
NO. CONTINUING	178,559	119,855	72,618	31,282	223,755	402,314
CONTINUATION RATE	79	91	99	65	88	84
1978						
BEGINNING STRENGTH	217,726	139,190	71,640	41,029	251,859	469,585
NO. OF LOSSES	35,805	13,605	856	13,225	27,686	63,491
NO. CONTINUING	181,921	125,585	70,784	27,804	224,173	406,094
CONTINUATION RATE	84	90	99	68	89	86
1979						
BEGINNING STRENGTH	218,468	141,633	71,956	37,215	250,804	469,272
NO. OF LOSSES	42,488	17,359	987	13,281	31,627	74,115
NO. CONTINUING	175,980	124,274	70,969	23,934	219,177	395,157
CONTINUATION RATE	81	88	99	64	87	84

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-VIII

CONTINUATION OF AIR FORCE ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
BEGINNING STRENGTH	215,692	136,985	70,289	35,490	242,764	458,456
NO. OF LOSSES	41,797	17,538	934	12,735	31,207	73,004
NO. CONTINUING	173,895	119,447	69,355	22,755	211,557	385,452
CONTINUATION RATE	81	87	99	64	87	84
1981						
BEGINNING STRENGTH	218,171	131,461	70,396	35,050	236,907	455,078
NO. OF LOSSES	39,188	14,626	971	10,337	25,934	65,122
NO. CONTINUING	178,983	116,835	69,425	24,713	210,973	389,956
CONTINUATION RATE	82	89	99	71	89	86
1982						
BEGINNING STRENGTH	224,515	133,076	72,013	35,348	240,437	464,952
NO. OF LOSSES	35,947	12,726	874	9,884	23,484	59,431
NO. CONTINUING	188,568	120,350	71,139	25,464	216,953	405,521
CONTINUATION RATE	84	90	99	72	90	87
1983						
BEGINNING STRENGTH	225,539	145,103	71,283	36,575	252,961	478,500
NO. OF LOSSES	32,812	11,456	842	11,044	23,342	56,154
NO. CONTINUING	192,727	133,647	70,441	25,531	229,619	422,346
CONTINUATION RATE	85	92	99	70	91	88

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-IX

CONTINUATION OF AIR FORCE ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
BEGINNING STRENGTH	218,637	153,312	75,522	34,017	262,851	481,548
NO. OF LOSSES	30,666	12,330	1,236	9,925	23,491	54,157
NO. CONTINUING	188,031	140,982	74,286	24,092	239,360	427,391
CONTINUATION RATE	86	92	98	71	91	89
1985						
BEGINNING STRENGTH	212,906	162,481	77,812	32,028	272,321	485,227
NO. OF LOSSES	35,119	14,105	1,219	9,905	25,229	60,348
NO. CONTINUING	177,787	148,376	76,593	22,123	247,092	424,879
CONTINUATION RATE	84	91	98	69	91	88
1986						
BEGINNING STRENGTH	204,552	171,052	79,890	31,805	282,747	487,299
NO. OF LOSSES	28,807	15,724	1,408	9,318	26,450	55,257
NO. CONTINUING	175,745	155,328	78,482	22,487	256,297	432,042
CONTINUATION RATE	86	91	98	71	91	89
1987						
BEGINNING STRENGTH	204,402	176,217	81,253	32,388	289,858	494,260
NO. OF LOSSES	25,671	15,274	1,250	9,295	25,819	51,490
NO. CONTINUING	178,731	160,943	80,003	23,093	264,039	442,770
CONTINUATION RATE	87	91	98	71	91	90

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-X

CONTINUATION OF MARINE CORPS ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
BEGINNING STRENGTH	133,543	24,291	12,752	5,777	42,820	176,363
NO. OF LOSSES	46,463	4,479	822	2,464	7,765	54,228
NO. CONTINUING	87,080	19,812	11,930	3,313	35,055	122,135
CONTINUATION RATE	65	82	94	57	82	69
1975						
BEGINNING STRENGTH	127,172	25,948	12,141	4,805	42,894	170,066
NO. OF LOSSES	40,048	4,798	733	1,606	7,137	47,185
NO. CONTINUING	87,124	21,150	11,408	3,199	35,757	122,881
CONTINUATION RATE	69	82	94	67	83	72
1976						
BEGINNING STRENGTH	133,822	27,857	10,617	5,071	43,545	177,367
NO. OF LOSSES	43,510	4,907	659	2,144	7,710	51,220
NO. CONTINUING	90,312	22,950	9,958	2,927	35,835	126,147
CONTINUATION RATE	67	82	94	58	82	71
1977						
BEGINNING STRENGTH	127,156	30,088	9,675	4,296	44,059	171,215
NO. OF LOSSES	33,268	5,523	515	1,406	7,444	40,712
NO. CONTINUING	93,888	24,565	9,160	2,890	36,615	130,503
CONTINUATION RATE	74	82	95	67	83	76
1978						
BEGINNING STRENGTH	128,660	31,334	8,815	4,370	44,519	173,179
NO. OF LOSSES	30,590	6,272	446	1,417	8,135	38,725
NO. CONTINUING	98,070	25,062	8,369	2,953	36,384	134,454
CONTINUATION RATE	76	80	95	68	82	78
1979						
BEGINNING STRENGTH	128,403	31,192	8,465	4,351	44,008	172,411
NO. OF LOSSES	35,723	6,320	262	1,413	7,995	43,718
NO. CONTINUING	92,680	24,872	8,203	2,938	36,013	128,693
CONTINUATION RATE	72	80	97	68	82	75

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XI

CONTINUATION OF MARINE CORPS ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
BEGINNING STRENGTH	122,257	32,091	7,963	4,648	44,702	166,969
NO. OF LOSSES	29,739	5,443	254	1,550	7,247	36,986
NO. CONTINUING	92,528	26,648	7,709	3,098	37,455	129,983
CONTINUATION RATE	76	83	97	67	84	78
1981						
BEGINNING STRENGTH	122,702	34,924	8,360	4,301	47,585	170,287
NO. OF LOSSES	29,613	5,719	203	1,161	7,083	36,696
NO. CONTINUING	93,089	29,205	8,157	3,140	40,502	133,591
CONTINUATION RATE	76	84	98	73	85	78
1982						
BEGINNING STRENGTH	120,191	38,894	9,094	4,156	52,144	172,335
NO. OF LOSSES	27,514	5,382	237	1,062	6,681	34,195
NO. CONTINUING	92,677	33,512	8,857	3,094	45,463	138,140
CONTINUATION RATE	77	86	97	74	87	80
1983						
BEGINNING STRENGTH	117,611	43,557	10,126	3,940	57,623	175,234
NO. OF LOSSES	28,699	6,565	255	839	7,659	36,358
NO. CONTINUING	88,912	36,992	9,871	3,101	49,964	138,876
CONTINUATION RATE	76	85	97	79	87	79

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XII

CONTINUATION OF MARINE CORPS ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
BEGINNING STRENGTH	113,662	46,297	11,010	4,095	61,402	175,064
NO. OF LOSSES	27,684	7,524	307	1,054	8,885	36,569
NO. CONTINUING	85,978	38,773	10,703	3,041	52,517	138,495
CONTINUATION RATE	76	84	97	74	86	79
1985						
BEGINNING STRENGTH	113,561	46,244	12,146	3,976	62,366	175,927
NO. OF LOSSES	24,558	5,843	347	1,040	7,230	31,788
NO. CONTINUING	89,003	40,401	11,799	2,936	55,136	144,139
CONTINUATION RATE	78	87	97	74	88	82
1986						
BEGINNING STRENGTH	111,515	48,712	13,147	4,173	66,032	177,547
NO. OF LOSSES	22,960	6,236	379	1,091	7,706	30,666
NO. CONTINUING	88,555	42,476	12,768	3,082	58,326	146,881
CONTINUATION RATE	79	87	97	74	88	83
1987						
BEGINNING STRENGTH	110,276	49,917	14,222	4,258	68,397	178,673
NO. OF LOSSES	23,245	6,135	501	1,139	7,775	31,020
NO. CONTINUING	87,031	43,782	13,721	3,119	60,622	147,653
CONTINUATION RATE	79	88	96	73	89	83

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XIII

CONTINUATION OF DOD ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
BEGINNING STRENGTH	1,163,178	376,074	265,353	113,876	755,303	1,918,481
NO. OF LOSSESS	356,162	47,137	11,008	46,091	104,236	460,398
NO. CONTINUING	807,016	328,937	254,345	67,785	651,067	1,458,083
CONTINUATION RATE	69	87	96	60	86	76
1975						
BEGINNING STRENGTH	1,119,776	368,620	240,537	116,815	725,972	1,845,748
NO. OF LOSSESS	334,665	42,890	10,614	46,951	100,455	435,120
NO. CONTINUING	785,111	325,730	229,923	69,864	625,517	1,410,628
CONTINUATION RATE	70	88	96	60	86	76
1976						
BEGINNING STRENGTH	1,099,275	391,601	223,098	105,106	719,805	1,819,080
NO. OF LOSSESS	318,426	46,445	9,383	39,671	95,499	413,925
NO. CONTINUING	780,849	345,156	213,715	65,435	624,306	1,405,155
CONTINUATION RATE	71	88	96	62	87	77
1977						
BEGINNING STRENGTH	1,053,914	430,861	210,701	93,708	735,270	1,789,184
NO. OF LOSSESS	273,078	54,245	9,021	32,586	95,852	368,930
NO. CONTINUING	780,836	376,616	201,680	61,122	639,418	1,420,254
CONTINUATION RATE	74	87	96	65	87	79
1978						
BEGINNING STRENGTH	1,045,091	449,145	200,610	88,717	738,472	1,783,563
NO. OF LOSSESS	222,623	59,635	7,691	29,402	96,728	319,351
NO. CONTINUING	822,468	389,510	192,919	59,315	641,744	1,464,212
CONTINUATION RATE	79	87	96	67	87	82
1979						
BEGINNING STRENGTH	1,031,822	460,146	193,665	86,867	740,678	1,772,500
NO. OF LOSSESS	246,118	65,823	5,846	30,666	102,335	348,453
NO. CONTINUING	785,704	394,323	187,819	56,201	638,343	1,424,047
CONTINUATION RATE	76	86	97	65	86	80

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XIV

CONTINUATION OF DOD ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
BEGINNING STRENGTH	1,000,037	465,338	186,463	86,371	738,172	1,738,209
NO. OF LOSSESS	232,635	66,592	5,704	30,841	103,137	335,772
NO. CONTINUING	767,402	398,746	180,759	55,530	635,035	1,402,437
CONTINUATION RATE	77	86	97	64	86	81
1981						
BEGINNING STRENGTH	1,012,363	472,878	186,791	85,216	744,885	1,757,248
NO. OF LOSSESS	218,222	61,059	5,006	26,112	92,177	310,399
NO. CONTINUING	794,141	411,819	181,785	59,104	652,708	1,446,849
CONTINUATION RATE	78	87	97	69	88	82
1982						
BEGINNING STRENGTH	999,944	506,028	188,502	86,531	781,061	1,781,005
NO. OF LOSSESS	198,946	57,876	4,317	25,713	87,906	286,852
NO. CONTINUING	800,998	448,152	184,185	60,818	693,155	1,494,153
CONTINUATION RATE	80	89	98	70	89	84
1983						
BEGINNING STRENGTH	976,801	551,879	191,447	83,700	827,026	1,803,827
NO. OF LOSSESS	200,773	63,770	4,727	23,858	92,355	293,128
NO. CONTINUING	776,028	488,109	186,720	59,842	734,671	1,510,699
CONTINUATION RATE	79	88	98	71	89	84

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XV

CONTINUATION OF DOD ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
BEGINNING STRENGTH	952,693	573,326	200,829	82,485	856,640	1,809,333
NO. OF LOSSES	191,947	70,238	6,395	24,005	100,638	292,585
NO. CONTINUING	760,746	503,088	194,434	58,480	756,002	1,516,748
CONTINUATION RATE	80	88	97	71	88	84
1985						
BEGINNING STRENGTH	939,668	586,058	212,576	80,224	878,858	1,818,526
NO. OF LOSSES	182,161	70,994	6,204	24,044	101,242	283,403
NO. CONTINUING	757,507	515,064	206,372	56,180	777,616	1,535,123
CONTINUATION RATE	81	88	97	70	88	84
1986						
BEGINNING STRENGTH	927,324	595,431	223,585	79,713	898,729	1,826,053
NO. OF LOSSES	178,752	73,575	7,062	24,493	105,130	283,882
NO. CONTINUING	748,572	521,856	216,523	55,220	793,599	1,542,171
CONTINUATION RATE	81	88	97	69	88	84
1987						
BEGINNING STRENGTH	932,015	598,772	233,259	79,145	911,176	1,843,191
NO. OF LOSSES	178,487	67,835	5,971	23,803	97,609	276,096
NO. CONTINUING	753,528	530,937	227,288	55,342	813,567	1,567,095
CONTINUATION RATE	81	89	97	70	89	85

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XVI

RETENTION OF ARMY ENLISTED PERSONNEL
(FY1974-FY1979)
* BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
<13 MOS AT BOY.....	119,098	29,262	14,583	12,880	56,725	175,823
RETENTION NUMBER...	18,319	16,747	13,338	4,769	34,854	53,173
RETENTION RATE.....	15	57	91	37	61	30
1975						
<13 MOS AT BOY.....	123,475	27,422	11,391	9,883	48,696	172,171
RETENTION NUMBER...	23,281	17,319	10,408	4,193	31,920	55,201
RETENTION RATE.....	19	63	91	42	66	32
1976						
<13 MOS AT BOY.....	99,647	28,356	10,815	9,359	48,530	148,177
RETENTION NUMBER...	19,018	17,203	9,637	3,675	30,515	49,533
RETENTION RATE.....	19	61	89	39	63	33
1977						
<13 MOS AT BOY.....	105,437	36,660	10,946	8,627	56,233	161,670
RETENTION NUMBER...	29,402	21,401	9,835	3,900	35,136	64,538
RETENTION RATE.....	28	58	90	45	62	40
1978						
<13 MOS AT BOY.....	86,225	39,047	8,803	8,557	56,407	142,632
RETENTION NUMBER...	23,562	21,732	8,041	3,876	33,649	57,211
RETENTION RATE.....	27	56	91	45	60	40
1979						
<13 MOS AT BOY.....	103,507	37,769	7,619	8,614	54,002	157,509
RETENTION NUMBER...	28,471	20,047	6,879	3,735	30,661	59,132
RETENTION RATE.....	28	53	90	43	57	38

TABLE A-XVII

RETENTION OF ARMY ENLISTED PERSONNEL
(FY1980-FY1983)
* BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
<13 MOS AT BOY.....	102,050	42,435	8,107	8,197	58,739	160,789
RETENTION NUMBER...	31,136	24,420	7,314	3,574	35,308	66,444
RETENTION RATE.....	31	58	90	44	60	41
1981						
<13 MOS AT BOY.....	81,919	44,824	9,773	8,111	62,708	144,627
RETENTION NUMBER...	30,951	28,581	8,972	3,851	41,404	72,355
RETENTION RATE.....	38	64	92	47	66	50
1982						
<13 MOS AT BOY.....	77,804	49,243	10,409	8,752	68,404	146,208
RETENTION NUMBER...	31,255	33,864	9,602	4,140	47,606	78,861
RETENTION RATE.....	40	69	92	47	70	54
1983						
<13 MOS AT BOY.....	93,998	56,548	11,018	8,284	75,850	169,848
RETENTION NUMBER...	30,664	36,184	9,939	3,944	50,067	80,731
RETENTION RATE.....	33	64	90	48	66	48

TABLE A-XVIII

RETENTION OF ARMY ENLISTED PERSONNEL
(FY1984-FY1987)
* BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
<13 MOS AT BOY.....	83,673	53,339	12,054	7,868	73,261	156,934
RETENTION NUMBER...	27,594	32,733	10,610	3,743	47,086	74,680
RETENTION RATE.....	33	61	88	48	64	48
1985						
<13 MOS AT BOY.....	76,312	52,737	11,881	7,181	71,799	148,111
RETENTION NUMBER...	26,475	32,605	10,453	3,257	46,315	72,790
RETENTION RATE.....	35	62	88	45	65	49
1986						
<13 MOS AT BOY.....	86,019	50,761	11,082	6,799	68,642	154,661
RETENTION NUMBER...	28,652	32,236	9,770	2,693	44,699	73,351
RETENTION RATE.....	33	64	88	40	65	47
1987						
<13 MOS AT BOY.....	86,784	42,258	11,212	6,238	59,708	146,492
RETENTION NUMBER...	28,237	27,316	9,921	2,484	39,721	67,958
RETENTION RATE.....	33	65	88	40	67	46

TABLE A-XIX

RETENTION OF NAVY ENLISTED PERSONNEL
(FY1974-FY1979)
* BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
<13 MOS AT BOY.....	59,753	25,070	21,211	6,609	52,890	112,643
RETENTION NUMBER...	9,209	13,283	18,086	2,919	34,288	43,497
RETENTION RATE.....	15	53	85	44	65	39
1975						
<13 MOS AT BOY.....	61,506	22,969	18,195	7,636	48,800	110,306
RETENTION NUMBER...	12,881	12,844	15,111	2,937	30,892	43,773
RETENTION RATE.....	21	56	83	38	63	40
1976						
<13 MOS AT BOY.....	60,050	19,543	9,764	5,430	34,737	94,787
RETENTION NUMBER...	12,366	10,793	8,012	1,898	20,703	33,069
RETENTION RATE.....	21	55	82	35	60	35
1977						
<13 MOS AT BOY.....	49,107	22,980	7,587	3,916	34,483	83,590
RETENTION NUMBER...	11,088	12,117	6,230	1,540	19,887	30,975
RETENTION RATE.....	23	53	82	39	58	37
1978						
<13 MOS AT BOY.....	35,674	26,221	8,585	5,077	39,883	75,557
RETENTION NUMBER...	8,220	12,418	7,231	2,085	21,734	29,954
RETENTION RATE.....	23	47	84	41	54	40
1979						
<13 MOS AT BOY.....	42,557	28,665	8,873	5,338	42,876	85,433
RETENTION NUMBER...	9,412	12,967	7,676	2,092	22,735	32,147
RETENTION RATE.....	22	45	87	39	53	38

TABLE A-XX

RETENTION OF NAVY ENLISTED PERSONNEL
(FY1980-FY1983)
* BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
<13 MOS AT BOY.....	47,474	32,661	10,433	6,607	49,701	97,175
RETENTION NUMBER...	11,703	15,364	9,086	2,657	27,107	38,810
RETENTION RATE.....	25	47	87	40	55	40
1981						
<13 MOS AT BOY.....	53,019	35,629	11,420	6,702	53,751	106,770
RETENTION NUMBER...	16,419	19,211	10,314	3,051	32,576	48,995
RETENTION RATE.....	31	54	90	46	61	46
1982						
<13 MOS AT BOY.....	42,473	34,854	11,838	7,029	53,721	96,194
RETENTION NUMBER...	16,221	20,144	11,009	3,355	34,508	50,729
RETENTION RATE.....	38	58	93	48	64	53
1983						
<13 MOS AT BOY.....	39,832	36,563	12,805	7,045	56,413	96,245
RETENTION NUMBER...	17,829	23,278	12,019	3,830	39,127	56,956
RETENTION RATE.....	45	64	94	54	69	59

TABLE A-XXI

RETENTION OF NAVY ENLISTED PERSONNEL
(FY1984-FY1987)
* BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
<13 MOS AT BOY.....	43,457	38,905	13,218	7,573	59,696	103,153
RETENTION NUMBER...	17,975	23,907	12,317	4,083	40,307	58,282
RETENTION RATE.....	41	61	93	54	68	57
1985						
<13 MOS AT BOY.....	46,329	39,418	12,565	7,772	59,755	106,084
RETENTION NUMBER...	18,652	23,130	11,689	4,138	38,957	57,609
RETENTION RATE.....	40	59	93	53	65	54
1986						
<13 MOS AT BOY.....	37,698	42,692	12,122	7,622	62,436	100,134
RETENTION NUMBER...	15,438	24,695	11,053	3,594	39,342	54,780
RETENTION RATE.....	41	58	91	47	63	55
1987						
<13 MOS AT BOY.....	37,363	44,724	13,144	7,210	65,078	102,441
RETENTION NUMBER...	14,486	26,980	12,206	3,411	42,597	57,083
RETENTION RATE.....	39	60	93	47	65	56

TABLE A-XXII

RETENTION OF AIR FORCE ENLISTED PERSONNEL
(FY1974-FY1979)
*BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
<13 MOS AT BOY.....	41,115	21,588	9,557	23,033	54,178	95,293
RETENTION NUMBER...	6,990	15,070	9,320	7,821	32,211	39,201
RETENTION RATE.....	17	70	98	34	59	41
1975						
<13 MOS AT BOY.....	38,219	23,207	8,623	29,295	61,125	99,344
RETENTION NUMBER...	8,743	16,234	8,421	10,847	35,502	44,245
RETENTION RATE.....	23	70	98	37	58	45
1976						
<13 MOS AT BOY.....	37,279	27,295	9,982	22,566	59,843	97,122
RETENTION NUMBER...	8,268	18,040	9,761	7,971	35,772	44,040
RETENTION RATE.....	22	66	98	35	60	45
1977						
<13 MOS AT BOY.....	27,981	22,983	10,098	19,514	52,595	80,576
RETENTION NUMBER...	7,455	15,201	9,889	7,695	32,785	40,240
RETENTION RATE.....	27	66	98	39	62	50
1978						
<13 MOS AT BOY.....	18,863	21,108	7,522	13,065	41,695	60,558
RETENTION NUMBER...	5,676	12,684	7,330	4,521	24,535	30,211
RETENTION RATE.....	30	60	97	35	59	50
1979						
<13 MOS AT BOY.....	27,786	25,976	7,925	12,110	46,011	73,797
RETENTION NUMBER...	6,184	13,850	7,598	3,706	25,154	31,338
RETENTION RATE.....	22	53	96	31	55	42

TABLE A-XXIII

RETENTION OF AIR FORCE ENLISTED PERSONNEL
(FY1980-FY1983)
*BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
<13 MOS AT BOY.....	34,105	30,513	7,884	13,438	51,835	85,940
RETENTION NUMBER...	10,189	16,652	7,556	4,614	28,822	39,011
RETENTION RATE.....	30	55	96	34	56	45
1981						
<13 MOS AT BOY.....	36,060	29,959	8,732	12,480	51,171	87,231
RETENTION NUMBER...	13,323	18,180	8,357	5,153	31,690	45,013
RETENTION RATE.....	37	61	96	41	62	52
1982						
<13 MOS AT BOY.....	32,894	29,363	8,465	12,123	49,951	82,845
RETENTION NUMBER...	15,262	19,699	8,166	5,306	33,171	48,433
RETENTION RATE.....	46	67	96	44	66	58
1983						
<13 MOS AT BOY.....	27,992	23,491	9,052	11,372	43,915	71,907
RETENTION NUMBER...	13,829	16,239	8,768	5,013	30,020	43,849
RETENTION RATE.....	49	69	97	44	68	61

TABLE A-XXIV

RETENTION OF AIR FORCE ENLISTED PERSONNEL
(FY1984-FY1987)
*BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
<13 MOS AT BOY.....	26,804	17,870	9,004	11,271	38,145	64,949
RETENTION NUMBER...	12,402	11,647	8,444	4,629	24,720	37,122
RETENTION RATE.....	46	65	94	41	65	57
1985						
<13 MOS AT BOY.....	31,400	17,624	8,257	10,384	36,265	67,665
RETENTION NUMBER...	13,399	10,720	7,861	3,769	22,350	35,749
RETENTION RATE.....	43	61	95	36	62	53
1986						
<13 MOS AT BOY.....	20,811	19,811	7,797	6,057	33,665	54,476
RETENTION NUMBER...	10,410	13,256	7,461	4,060	24,777	35,187
RETENTION RATE.....	50	67	96	67	74	65
1987						
<13 MOS AT BOY.....	23,561	26,819	9,874	12,434	49,127	72,688
RETENTION NUMBER...	10,749	16,479	9,337	4,677	30,493	41,242
RETENTION RATE.....	46	61	95	38	62	57

TABLE A-XXV

RETENTION OF MARINE CORPS ENLISTED PERSONNEL
(FY1974-FY1979)
*BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
<13 MOS AT BOY.....	38,716	6,112	3,830	3,383	13,325	52,041
RETENTION NUMBER...	6,424	3,199	3,387	1,488	8,074	14,498
RETENTION RATE.....	17	52	88	44	61	28
1975						
<13 MOS AT BOY.....	30,572	6,977	3,541	2,559	13,077	43,649
RETENTION NUMBER...	5,691	3,599	3,062	1,276	7,937	13,628
RETENTION RATE.....	19	52	86	50	61	31
1976						
<13 MOS AT BOY.....	28,697	6,661	3,084	2,920	12,665	41,362
RETENTION NUMBER...	5,067	3,424	2,693	1,214	7,331	12,398
RETENTION RATE.....	18	51	87	42	58	30
1977						
<13 MOS AT BOY.....	25,525	8,585	2,570	2,314	13,469	38,994
RETENTION NUMBER...	5,419	4,657	2,256	1,172	8,085	13,504
RETENTION RATE.....	21	54	88	51	60	35
1978						
<13 MOS AT BOY.....	22,576	10,265	2,099	2,357	14,721	37,297
RETENTION NUMBER...	4,904	5,259	1,865	1,160	8,284	13,188
RETENTION RATE.....	22	51	89	49	56	35
1979						
<13 MOS AT BOY.....	31,612	11,560	2,030	2,654	16,244	47,856
RETENTION NUMBER...	6,740	6,168	1,872	1,427	9,467	16,207
RETENTION RATE.....	21	53	92	54	58	34

TABLE A-XXVI

RETENTION OF MARINE CORPS ENLISTED PERSONNEL
(FY1980-FY1983)
*BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
<13 MOS AT BOY.....	29,096	11,003	1,960	2,919	15,882	44,978
RETENTION NUMBER...	7,835	6,370	1,780	1,535	9,685	17,520
RETENTION RATE.....	27	58	91	53	61	39
1981						
<13 MOS AT BOY.....	28,425	12,272	2,232	2,512	17,016	45,441
RETENTION NUMBER...	8,929	7,399	2,083	1,455	10,937	19,766
RETENTION RATE.....	31	60	93	58	64	43
1982						
<13 MOS AT BOY.....	27,586	11,804	1,898	2,402	16,104	43,690
RETENTION NUMBER...	10,009	7,478	1,761	1,450	10,689	20,698
RETENTION RATE.....	36	63	93	60	66	47
1983						
<13 MOS AT BOY.....	27,794	12,968	1,967	2,125	17,060	44,854
RETENTION NUMBER...	9,118	8,076	1,825	1,370	11,271	20,389
RETENTION RATE.....	33	62	93	64	66	45

TABLE A-XXVII

RETENTION OF MARINE CORPS ENLISTED PERSONNEL
(FY1984-FY1987)
*BOY = Beginning of the Fiscal Year

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
<13 MOS AT BOY.....	26,950	13,359	2,201	2,351	17,911	44,861
RETENTION NUMBER...	8,180	7,702	2,026	1,398	11,126	19,306
RETENTION RATE.....	30	58	92	59	62	43
1985						
<13 MOS AT BOY.....	24,542	10,367	2,213	2,067	14,647	39,189
RETENTION NUMBER...	7,124	6,100	1,999	1,171	9,270	16,394
RETENTION RATE.....	29	59	90	57	63	42
1986						
<13 MOS AT BOY.....	21,356	10,323	2,044	2,189	14,556	35,912
RETENTION NUMBER...	5,936	5,807	1,846	1,208	8,861	14,797
RETENTION RATE.....	28	56	90	55	61	41
1987						
<13 MOS AT BOY.....	19,038	10,295	2,956	2,204	15,455	34,493
RETENTION NUMBER...	4,687	6,024	2,658	1,211	9,893	14,580
RETENTION RATE.....	25	59	90	55	64	42

TABLE A-XXVIII

EXPERIENCE DISTRIBUTION OF ARMY ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
NUMBER	452,204	125,940	70,071	32,480	228,491	680,695
% OF ENLISTED	66	19	10	5	34	100
1975						
NUMBER	453,292	121,527	69,197	28,967	219,691	672,983
% OF ENLISTED	67	18	10	4	33	100
1976						
NUMBER	448,013	132,936	67,268	26,926	227,130	675,143
% OF ENLISTED	66	20	10	4	34	100
1977						
NUMBER	434,840	156,257	64,199	23,912	244,368	679,208
% OF ENLISTED	65	23	10	4	37	102
1978						
NUMBER	429,318	164,813	60,148	25,012	249,973	679,291
% OF ENLISTED	63	24	9	4	37	100
1979						
NUMBER	413,309	171,191	57,399	26,945	255,535	668,844
% OF ENLISTED	62	26	9	4	38	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXIX

EXPERIENCE DISTRIBUTION OF ARMY ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
NUMBER	398,372	175,066	56,460	26,607	258,133	656,505
% OF ENLISTED	61	27	9	4	39	100
1981						
NUMBER	406,129	182,973	58,101	26,222	267,301	673,430
% OF ENLISTED	60	27	9	4	40	100
1982						
NUMBER	389,698	200,432	57,840	26,659	284,931	674,629
% OF ENLISTED	58	30	9	4	42	100
1983						
NUMBER	372,134	216,266	59,246	24,770	300,282	672,416
% OF ENLISTED	55	32	9	4	45	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXX

EXPERIENCE DISTRIBUTION OF ARMY ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
NUMBER	362,927	218,766	63,162	23,347	305,275	668,202
% OF ENLISTED	54	33	9	3	46	100
1985						
NUMBER	360,745	214,161	70,593	21,992	306,746	667,491
% OF ENLISTED	54	32	11	3	46	100
1986						
NUMBER	363,266	205,792	75,192	21,797	302,781	666,047
% OF ENLISTED	55	31	11	3	45	100
1987						
NUMBER	364,000	200,507	80,255	21,765	302,527	666,527
% OF ENLISTED	55	30	12	3	45	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXI

EXPERIENCE DISTRIBUTION OF NAVY ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
NUMBER	293,215	100,450	80,299	16,054	196,793	490,008
% OF ENLISTED	60	20	16	3	40	100
1975						
NUMBER	282,114	99,061	73,820	19,090	191,971	489,861
% OF ENLISTED	58	20	15	4	39	100
1976						
NUMBER	276,192	102,874	66,978	19,361	189,213	495,044
% OF ENLISTED	56	21	14	4	38	100
1977						
NUMBER	265,764	112,478	63,492	17,614	193,584	504,361
% OF ENLISTED	53	22	13	3	38	100
1978						
NUMBER	269,387	113,808	59,905	18,306	192,019	489,861
% OF ENLISTED	55	23	12	4	39	100
1979						
NUMBER	271,642	116,160	55,845	18,356	190,361	495,044
% OF ENLISTED	55	23	11	4	38	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXII

EXPERIENCE DISTRIBUTION OF NAVY ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
NUMBER	263,704	121,246	51,751	19,626	192,623	456,327
% OF ENLISTED	58	27	11	4	42	100
1981						
NUMBER	265,361	121,515	49,934	19,643	191,092	456,453
% OF ENLISTED	58	27	11	4	42	100
1982						
NUMBER	265,540	133,626	49,555	20,368	203,549	469,089
% OF ENLISTED	57	28	11	4	43	100
1983						
NUMBER	261,517	146,953	50,792	20,415	218,160	479,677
% OF ENLISTED	56	31	11	4	47	102

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXIII

EXPERIENCE DISTRIBUTION OF NAVY ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
NUMBER	257,407	154,951	50,135	21,026	226,112	483,519
% OF ENLISTED	53	32	10	4	47	100
1985						
NUMBER	252,456	163,172	52,025	22,208	237,405	489,861
% OF ENLISTED	52	33	11	5	48	100
1986						
NUMBER	247,991	169,759	55,356	21,938	247,053	495,044
% OF ENLISTED	50	34	11	4	50	100
1987						
NUMBER	253,337	172,131	58,159	20,734	251,024	504,361
% OF ENLISTED	50	34	12	4	50	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXIV

EXPERIENCE DISTRIBUTION OF AIR FORCE ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1974						
NUMBER	284,216	125,393	102,241	59,563	287,197	571,413
% OF ENLISTED	50	22	18	10	50	100
1975						
NUMBER	257,198	122,084	85,379	63,953	271,416	528,614
% OF ENLISTED	49	23	16	12	51	100
1976						
NUMBER	241,248	127,934	78,235	53,748	259,917	501,165
% OF ENLISTED	48	26	16	11	52	100
1977						
NUMBER	226,154	132,038	73,335	47,886	253,259	479,413
% OF ENLISTED	47	28	15	10	53	100
1978						
NUMBER	217,726	139,190	71,640	41,029	251,859	469,585
% OF ENLISTED	46	30	15	9	54	100
1979						
NUMBER	218,468	141,633	71,956	37,215	250,804	469,272
% OF ENLISTED	47	30	15	8	53	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXV

EXPERIENCE DISTRIBUTION OF AIR FORCE ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1980						
NUMBER	215,692	136,985	70,289	35,490	242,764	458,456
% OF ENLISTED	47	30	15	8	53	100
1981						
NUMBER	218,171	131,461	70,396	35,050	236,907	455,078
% OF ENLISTED	48	29	15	8	52	100
1982						
NUMBER	224,515	133,076	72,013	35,348	240,437	464,952
% OF ENLISTED	48	29	15	8	52	100
1983						
NUMBER	225,539	145,103	71,283	36,575	252,961	478,500
% OF ENLISTED	47	30	15	8	53	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXVI

EXPERIENCE DISTRIBUTION OF AIR FORCE ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30+	5-30	TOTAL
1984						
NUMBER	218,697	153,312	75,522	34,017	262,851	481,548
% OF ENLISTED	45	32	16	7	55	100
1985						
NUMBER	212,906	162,481	77,812	32,028	272,321	485,227
% OF ENLISTED	44	33	16	7	56	100
1986						
NUMBER	204,552	171,052	79,890	31,805	282,747	487,299
% OF ENLISTED	42	35	16	7	58	100
1987						
NUMBER	204,402	176,217	81,253	32,388	289,858	494,260
% OF ENLISTED	41	36	16	7	59	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXVII

EXPERIENCE DISTRIBUTION OF MARINE CORPS ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1974						
NUMBER	133,543	24,291	12,752	5,777	42,820	176,363
% OF ENLISTED	76	14	7	3	24	100
1975						
NUMBER	127,172	25,948	12,141	4,805	42,894	170,066
% OF ENLISTED	75	15	7	3	25	100
1976						
NUMBER	133,822	27,857	10,617	5,071	43,545	177,367
% OF ENLISTED	75	16	6	3	25	100
1977						
NUMBER	127,156	30,088	9,675	4,296	44,059	171,215
% OF ENLISTED	74	18	6	3	26	100
1978						
NUMBER	128,660	31,334	8,815	4,370	44,519	173,179
% OF ENLISTED	74	18	5	3	26	100
1979						
NUMBER	128,403	31,192	8,465	4,351	44,008	172,411
% OF ENLISTED	74	18	5	3	26	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXVIII

EXPERIENCE DISTRIBUTION OF MARINE CORPS ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1980						
NUMBER	122,267	32,091	7,963	4,648	44,702	166,969
% OF ENLISTED	73	19	5	3	27	100
1981						
NUMBER	122,702	34,924	8,360	4,301	47,585	170,287
% OF ENLISTED	72	21	5	3	28	100
1982						
NUMBER	120,191	38,894	9,094	4,156	52,144	172,335
% OF ENLISTED	70	23	5	2	30	100
1983						
NUMBER	117,611	43,557	10,126	3,940	57,623	175,234
% OF ENLISTED	67	25	6	2	33	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXIX

EXPERIENCE DISTRIBUTION OF MARINE CORPS ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1984						
NUMBER	113,662	46,297	11,010	4,095	61,402	175,064
% OF ENLISTED	65	26	6	2	35	100
1985						
NUMBER	113,561	46,244	12,146	3,976	62,366	175,927
% OF ENLISTED	65	26	7	2	35	100
1986						
NUMBER	111,515	48,712	13,147	4,173	66,032	177,547
% OF ENLISTED	63	27	7	2	37	100
1987						
NUMBER	110,276	49,917	14,222	4,258	68,397	178,673
% OF ENLISTED	62	28	8	2	38	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXX

EXPERIENCE DISTRIBUTION OF DOD ENLISTED PERSONNEL
(FY1974-FY1979)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1974						
NUMBER	1,163,178	376,074	265,353	113,876	755,303	1,918,481
% OF ENLISTED	61	20	14	6	39	100
1975						
NUMBER	1,119,776	368,620	240,537	116,815	725,972	1,845,748
% OF ENLISTED	61	20	13	6	39	100
1976						
NUMBER	1,099,275	391,601	223,098	105,106	719,805	1,819,080
% OF ENLISTED	60	22	12	6	40	100
1977						
NUMBER	1,053,914	430,861	210,701	93,708	735,270	1,789,184
% OF ENLISTED	59	24	12	5	41	100
1978						
NUMBER	1,045,091	449,145	200,610	88,717	738,472	1,783,563
% OF ENLISTED	59	25	11	5	41	100
1979						
NUMBER	1,031,822	460,146	193,665	86,867	740,678	1,772,500
% OF ENLISTED	58	26	11	5	42	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXXI

EXPERIENCE DISTRIBUTION OF DOD ENLISTED PERSONNEL
(FY1980-FY1983)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1980						
NUMBER	1,000,037	465,338	186,463	86,371	738,172	1,738,209
% OF ENLISTED	58	27	11	5	42	100
1981						
NUMBER	1,012,363	472,878	186,791	85,216	744,885	1,757,248
% OF ENLISTED	58	27	11	5	42	100
1982						
NUMBER	999,944	506,028	188,502	86,531	781,061	1,781,005
% OF ENLISTED	56	28	11	5	44	100
1983						
NUMBER	976,801	551,879	191,447	83,700	827,026	1,803,827
% OF ENLISTED	54	31	11	5	46	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXXII

EXPERIENCE DISTRIBUTION OF DOD ENLISTED PERSONNEL
(FY1984-FY1987)

FISCAL YEAR	YOS 1-4	5-12	13-19	20-30	5-30	TOTAL
1984						
NUMBER	952,693	573,326	200,829	82,485	856,640	1,809,333
% OF ENLISTED	53	32	11	5	47	100
1985						
NUMBER	939,668	586,058	212,576	80,224	878,858	1,818,526
% OF ENLISTED	52	32	12	4	48	100
1986						
NUMBER	927,324	595,431	223,585	79,713	898,729	1,826,053
% OF ENLISTED	51	33	12	4	49	100
1987						
NUMBER	932,015	598,772	233,259	79,145	911,176	1,843,191
% OF ENLISTED	51	32	13	4	49	100

Numbers may not sum to totals due to unknown YOS for some personnel.

TABLE A-XXXXIII

WEIGHTED AVERAGE YEARS OF SERVICE OF ENLISTED PERSONNEL
(FY74-FY87)

FISCAL YEAR	ARMY	NAVY	AIR FORCE	MARINE CORPS	DOD
74	5.39	6.30	7.84	4.45	6.34
75	5.34	6.32	8.02	4.46	6.31
76	5.36	6.25	7.81	4.33	6.21
77	5.34	6.21	7.83	4.36	6.15
78	5.40	6.14	7.64	4.39	6.13
79	5.59	6.14	7.60	4.45	6.19
80	5.68	6.18	7.59	4.57	6.23
81	5.58	6.11	7.50	4.49	6.13
82	5.76	6.07	7.38	4.61	6.17
83	5.94	6.20	7.40	4.80	6.30
84	5.99	6.29	7.45	4.99	6.43
85	6.06	6.41	7.63	5.07	6.52
86	6.16	6.51	7.67	5.25	6.61
87	6.24	6.53	7.72	5.41	6.68

APPENDIX B

EXCERPTS FROM THE DOD FY87 ENLISTED TRANSITION MATRIX

This appendix contains excerpts from the Enlisted Transition Matrix for the Department of Defense (DOD) covering fiscal year 1987. The tables included in this section are the Base Number Table in its entirety (Table B-I) and the first pages of the Continuation Number and Continuation Rate Tables (Tables B-II and B-III), respectively.

TABLE B-I

FY87 ENLISTED PERSONNEL TRANSITION MATRIX REPORT-ACTIVE DUTY ENLISTED PERSONNEL
BY SERVICE, YEARS OF SERVICE, AND MONTHS TO ETS TIME 1 SERVICE: DOD

**BASE NUMBER YRS SERVED	UNK	<-<-<-<- MONTHS TO ETS TIME 1 ->->->-> < 13	13-24	25-36	37-48	49-60	> 60	TOTAL
1	40	322	11,955	75,865	161,241	3,174	24,035	276,632
2	148	9,752	63,222	147,100	9,387	20,005	551	250,166
3	95	57,846	133,366	17,064	18,922	1,173	1,612	230,078
4	408	98,825	21,007	30,701	13,483	4,543	6,171	175,139
5	633	19,329	27,593	20,328	24,631	9,030	10,009	112,152
6	370	22,617	19,867	27,510	14,582	11,435	3,950	100,331
7	323	16,285	26,153	17,693	16,261	4,946	4,469	86,130
8	254	20,523	18,057	19,593	9,477	5,259	4,389	77,552
9	280	14,427	20,019	13,065	11,270	6,083	4,989	70,133
10	216	14,058	12,854	13,149	9,854	5,717	4,819	60,667
11	130	7,877	12,547	10,958	8,069	4,673	4,714	48,968
12	96	8,381	10,662	9,143	7,167	4,746	2,644	42,839
13	70	6,342	9,932	9,068	8,565	3,453	2,573	40,585
14	68	6,480	9,823	10,085	6,352	2,854	2,616	38,278
15	66	6,064	10,704	7,366	4,704	3,381	3,865	36,150
16	43	6,787	7,835	5,335	5,212	6,209	2,389	33,810
17	38	3,911	4,225	4,238	9,083	3,022	897	25,414
18	33	3,304	5,043	12,900	5,348	1,314	646	29,188
19	27	3,698	13,391	8,501	2,443	1,030	474	30,464
20	33	9,957	7,543	3,507	1,389	642	271	23,842
21	46	4,997	3,513	2,884	1,988	465	531	14,424
22	18	2,538	2,848	2,091	1,023	589	266	9,373
23	15	2,027	2,161	1,267	1,028	332	100	6,930
24	6	1,723	1,443	1,519	655	150	93	5,589
25	18	1,319	1,955	1,239	535	197	104	5,367
26	12	1,806	1,548	843	403	256	15	4,883
27	8	1,216	921	584	479	33	4	3,245
28	7	664	608	738	54	7	6	2,084
29	7	534	940	107	9	6	2	1,605
30+	17	1,305	320	104	45	11	1	1,803
1-4	691	166,746	229,550	270,730	203,033	28,896	32,369	932,015
5-10	2,076	107,838	124,543	111,338	86,075	42,470	32,625	506,965
11-15	430	35,744	53,668	46,620	34,857	19,089	16,412	206,820
16-19	141	17,700	30,994	30,974	23,086	11,575	4,406	118,876
20-30+	187	28,086	23,800	14,883	8,108	2,688	1,393	79,145
5-30+	2,834	189,368	233,005	203,815	152,126	75,822	54,836	911,806
UNKNOWN	64	33	12	16	347	5	68	545
GRAND TOTAL	3,589	356,147	462,567	474,561	355,506	104,723	87,273	1,844,366
% 1-4	19.25	46.82	49.63	57.05	57.11	27.59	37.09	50.53
% 5-10	57.84	30.28	26.92	23.46	24.21	40.55	37.38	27.49
% 11-15	11.98	10.04	11.60	9.82	9.80	18.23	18.81	11.21
% 16-19	3.93	4.97	6.70	6.53	6.49	11.05	5.05	6.45
% 20-30+	5.21	7.89	5.15	3.14	2.28	2.57	1.60	4.29
% 5-30+	78.96	53.17	50.37	42.95	42.79	72.40	62.83	49.44
% UNKNOWN	1.78	0.01	.00	.00	0.10	.00	0.08	0.03

TABLE B-II

FY87 ENLISTED PERSONNEL TRANSITION MATRIX REPORT-ACTIVE DUTY ENLISTED PERSONNEL
BY SERVICE, YEARS OF SERVICE, ETS TIME 1, AND ETS TIME 2 SERVICE: DOD
**CONT NUMBER <-<-<-<- M O N T H S T O E T S T I M E 1 ->->->->->->->

YRS SERVED	MONTHS TO ETS TIME 2	UNK	< 13	13-24	25-36	37-48	49-60	> 60	TOTAL
1	UNK/UNCHG	7	56	0	6	14	0	0	83
	< 13	1	23	10,511	102	215	0	14	10,866
	13-24	0	19	195	63,716	338	11	21	64,300
	25-36	3	30	246	2,148	138,535	88	1,361	142,411
	37-48	1	7	66	505	3,219	2,806	393	6,997
	49-60	0	1	11	32	2,521	14	20,251	22,830
	< 60	0	1	11	99	24	3	80	218
	TOTAL	12	137	11,040	66,608	144,866	2,922	22,120	247,705
2	UNK/UNCHG	27	142	8	14	0	2	0	193
	< 13	2	314	48,031	416	26	12	7	48,808
	13-24	1	142	3,165	125,547	105	176	19	129,155
	25-36	3	830	2,628	5,627	8,308	57	13	17,466
	37-48	2	306	1,393	1,850	215	17,583	18	21,367
	49-60	0	83	623	69	21	85	353	1,234
	< 60	0	54	347	122	39	693	81	1,336
	TOTAL	35	1,871	56,195	133,645	8,714	18,608	491	219,559
3	UNK/UNCHG	19	747	66	6	0	1	1	840
	< 13	1	2,531	100,677	197	167	4	4	103,581
	13-24	3	838	5,602	14,313	89	8	2	20,855
	25-36	2	8,085	4,648	766	16,648	5	11	30,165
	37-48	2	4,662	5,970	433	360	1,057	11	12,495
	49-60	1	1,269	713	52	137	5	1,502	3,679
	< 60	0	1,074	4,190	213	513	6	8	6,004
	TOTAL	28	19,206	121,866	15,980	17,914	1,086	1,539	177,619
4	UNK/UNCHG	97	1,386	17	32	1	2	1	1,536
	< 13	10	4,736	12,848	111	34	8	5	17,752
	13-24	22	3,168	1,460	24,544	59	26	7	29,286
	25-36	39	7,042	1,043	1,453	12,096	19	11	21,703
	37-48	15	13,614	2,185	1,392	527	4,219	12	21,964
	49-60	24	1,360	300	159	64	19	5,904	7,830
	< 60	3	5,639	1,594	1,271	36	13	14	8,570
	TOTAL	210	36,945	19,447	28,962	12,817	4,306	5,954	108,641
5	UNK/UNCHG	117	374	4	2	6	1	0	504
	< 13	14	1,482	19,310	56	69	17	16	20,964
	13-24	44	856	1,207	17,183	75	8	8	19,381
	25-36	49	2,243	1,157	1,060	22,363	18	17	26,907
	37-48	23	2,765	1,765	531	814	8,507	12	14,417
	49-60	13	542	343	100	171	73	9,603	10,845
	< 60	5	1,454	2,145	257	81	24	27	3,993
	TOTAL	265	9,716	25,931	19,189	23,579	8,648	9,683	97,011

TABLE B-III

FY87 ENLISTED PERSONNEL TRANSITION MATRIX REPORT-ACTIVE DUTY ENLISTED PERSONNEL
BY SERVICE, YEARS OF SERVICE, ETS TIME 1, AND ETS TIME 2 SERVICE: DOD
**CONT RATE <-<-<-<-<- M O N T H S T O E T S T I M E 1 ->->->->->->->

YRS SERVED	MONTHS TO ETS TIME 2	UNK	< 13	13-24	25-36	37-48	49-60	> 60	TOTAL
1	UNK/UNCHG	17.50	17.39	0.00	0.01	0.01	0.00	0.00	0.03
	< 13	2.50	7.14	87.92	0.13	0.13	0.00	0.06	3.93
	13-24	0.00	5.90	1.63	83.99	0.21	0.35	0.09	23.24
	25-36	7.50	9.32	2.06	2.83	85.92	2.77	5.66	51.48
	37-48	2.50	2.17	0.55	0.67	2.00	88.41	1.64	2.53
	49-60	0.00	0.31	0.09	0.04	1.56	0.44	84.26	8.25
	< 60	0.00	0.31	0.09	0.13	0.01	0.09	0.33	0.08
	TOTAL	30.00	42.55	92.35	87.80	89.84	92.06	92.03	89.54
2	UNK/UNCHG	18.24	1.46	0.01	0.01	0.00	0.01	0.00	0.08
	< 13	1.35	3.22	75.97	0.28	0.28	0.06	1.27	19.51
	13-24	0.68	1.46	5.01	85.35	1.12	0.88	3.45	51.63
	25-36	2.03	8.51	4.16	3.83	88.51	0.28	2.36	6.98
	37-48	1.35	3.14	2.20	1.26	2.29	97.89	3.27	8.54
	49-60	0.00	0.85	0.99	0.05	0.22	0.42	64.07	0.49
	< 60	0.00	0.55	0.55	0.08	0.42	3.46	14.70	0.53
	TOTAL	23.65	19.19	88.89	90.85	92.83	93.02	89.11	87.77
3	UNK/UNCHG	20.00	1.29	0.05	0.04	0.00	0.09	0.06	0.37
	< 13	1.05	4.38	75.49	1.15	0.88	0.34	0.25	45.02
	13-24	3.16	1.45	4.20	83.88	0.47	0.68	0.12	9.06
	25-36	2.11	13.98	3.49	4.49	87.98	0.43	0.68	13.11
	37-48	2.11	8.06	4.48	2.54	1.90	90.11	0.68	5.43
	49-60	1.05	2.19	0.53	0.30	0.72	0.43	93.18	1.60
	< 60	0.00	1.86	3.14	1.25	2.71	0.51	0.50	2.61
	TOTAL	29.47	33.20	91.38	93.65	94.67	92.58	95.47	77.20
4	UNK/UNCHG	23.77	1.40	0.08	0.10	0.01	0.04	0.02	0.89
	< 13	2.45	4.79	61.16	0.36	0.25	0.18	0.08	10.14
	13-24	5.39	3.21	6.95	79.95	0.44	0.57	0.11	16.72
	25-36	9.56	7.13	4.97	4.73	89.71	0.42	0.18	12.39
	37-48	3.68	13.78	10.40	4.53	3.91	92.87	0.19	12.54
	49-60	5.38	1.38	1.43	0.52	0.47	0.42	95.67	4.47
	< 60	0.74	5.71	7.59	4.14	0.27	0.29	0.23	4.89
	TOTAL	51.47	37.38	92.57	94.34	95.06	94.78	96.48	62.03
5	UNK/UNCHG	18.48	1.88	0.01	0.01	0.02	0.01	0.00	0.45
	< 13	2.21	7.44	69.98	0.28	0.28	0.19	0.16	18.69
	13-24	6.95	4.30	4.37	84.53	0.30	0.09	0.08	17.28
	25-36	7.74	11.26	4.19	5.21	90.79	0.20	0.17	23.99
	37-48	3.63	13.87	6.40	2.61	3.30	94.21	0.12	12.85
	49-60	2.05	2.72	1.24	0.49	0.69	0.31	95.34	9.67
	< 60	0.79	7.30	7.77	1.26	0.33	0.27	0.27	3.56
	TOTAL	41.86	48.76	93.98	94.40	95.73	95.77	96.74	86.50

LIST OF REFERENCES

1. Kelley, R.T., "Introduction" to Part II of The All Volynteer Force After a Decade, Retrospect and Prospect, Pergamon-Brassey's International Defense Publishers, Washington, D.C., 1986.

2. Devine, E.J. and Min, S.H., "Changes in the Experience Distribution of the Enlisted Forces for Fiscal Years 1975-1983", Special Studies Division, National Security and International Affairs, Office of Management and Budget, Washington, D.C., 1984.

3. Bartholomew, D.J. and Forbes, A.F., Statistical Techniques for Manpower Planning, John Wiley & Sons, New York, Reprinted May 1981.

4. Military Manpower Task Force, A Report to the President on the Status and Prospects of the All-Volunteer Force, Superintendent of Documents, U.S. Government Printing Office, Washington, D.C., 1982.

5. Lockman, R.F., Final Report of the Personnel Management in the All-Volunteer Force Study, Center for Naval Analyses, Alexandria, VA, CNSR 8/April 1980.

6. Quester, A.O., and Thomason, J.S. Projecting the Retention of Navy Careerists, Center For Naval Analyses, Alexandria, VA, CRC 511 December, 1983.

7. Marcus, A.J., Retention and Career Force Quality, Center for Naval Analyses, Alexandria, VA, CNA 518/January 1984.

BIBLIOGRAPHY

Albrecht, M.J., Labor Substitution in the Military Environment: Implications for Enlisted Force Management, a report prepared by The Rand Corporation, Santa Monica, CA R-2330-MRAL, November 1979 for the Office of the Assistant Secretary of Defense/Manpower, Reserve Affairs and Logistics.

Arguden, Y., Unintended Effects of the New Military Retirement System, Rand Corporation, Santa Monica, CA, May 1987.

Bepko, J.J., III, Econometric Models of U.S. Navy Career Petty Officer Retention, M.S. Thesis, Naval Postgraduate School, Monterey CA, June 1981.

Bowman, W., Little, R., and Sicilia, G.T. Editors, (The All Volunteer Force After a Decade, Retrospective and Prospective, Pergamon-Brassey's International Defense Publishers, Washington, D.C., 1986.

Bradley, D.G., A Predictive Statistical Model of Navy Career Enlisted Retention Behavior Utilizing Economic Variables, M.S. Thesis, Naval Postgraduate School, Monterey CA, December 1980.

Clay-Mendez, D., Naval Studies Group, Models of Accession and Retention, Center for Naval Analyses, Alexandria, VA, CNA 82-1142.10/1 October 1982.

Cooke, T.W., Sea Pay, Sea Duty, and Retention: A Survey, Center For Naval Analyses, Alexandria, VA, CRM 85-36/June 1985.

Cymrot, D.J., The Effects of Selective Reenlistment Bonuses on Retention, Center For Naval Analyses, Alexandria, VA, CRM-87-43/March 1987.

Fernandez, R.L., Gotz, G.A., and Bell, M.B., The Dynamic Retention Model, Rand Corporation, Santa Monica, CA, April 1985.

Goldberg, M.S., Naval Studies Group, Third-term Navy Retention Elasticities, Center for Naval Analyses, Alexandria, VA, CNA 82-1668/25 October 1982.

Gotz, G.A. and McCall J.J., Estimating Military Personnel Retention Rates: Theory and Statistical Method, a report prepared by The Rand Corporation, Santa Monica, CA R-2541-AF, June 1980 for the United States Air Force.

Hall, J.V., Calculating the Year-to-year Size and Experience Level of a Changing Group, Center For Naval Analyses, Alexandria, VA, CRM-87-11/February 1987.

Hiller, J.R., Analysis of Second-Term Reenlistment Behavior, a report prepared by The Rand Corporation, Santa Monica, CA R-2884-MRAL, September 1982 for the Office of the Assistant Secretary of Defense/Manpower, Reserve Affairs and Logistics.

Hosek J.R., and Peterson C.E., Reenlistment Bonuses and Retention Behavior, Executive Summary, Rand Corporation, Santa Monica, CA, May 1985.

Kleinman, S.D., Naval Studies Group, Sea Pay and Reenlistment Bonuses: A Framework for Analysis, Center for Naval Analyses, Alexandria, VA, CNA 83-0644/27 April 1983.

Kostiuk, P.F., Effects of Unemployment Rates on the Attrition of Marine Corps Officers, Center For Naval Analyses, Alexandria, VA, CRC-87-11/January 1986.

Laird, M.R., People, Not Hardware, The Highest Defense Priority, American Enterprise Institute, Washington, D.C., 1980.

Lau, A.W., Personal and Organization Determinants of Enlisted Attrition, Navy Personnel Research and Development Center, San Diego, CA, NPRDC TR 79-11, March 1979.

Lawler III, E.E., Improving the Quality of Work Life--Reward Systems, Prepared for Assistant Secretary for Planning, Evaluation, and Research (Labor), June 1975.

Lindell, M.K., Walsh, J.T., Drexler, J.A. Jr., and Lawler, E.E. III, Effects of Technology on Experienced Job Characteristics and Job Satisfaction, Battelle Human Affairs Research Centers, Washington, D.C., BHARC-422/80/019 July 1980.

Lockman, R.F., Trends and Issues in U.S. Navy Manpower, Center for Naval Analyses, Alexandria, VA, 1987.

Marcus, A.J., Summary Report: Manning the 600-ship Navy, Center for Naval Analyses, Alexandria VA, CRM-85-111.10/December 1985.

McLaughlin, G.W., and Butler, Dr. R.P., The Validity of Six Models of Job Satisfaction in Predicting Military Commitment and Retention, Office of Institutional Research, United States Military Academy, West Point, NY, June 1971.

Millard, C.A., CAPT, USMC, A Methodology for Comparison of Attrition Forecasting Models, Center For Naval Analyses, Alexandria, VA, CRC 318 July 1977.

Sawyer, R.E., The Impact of Unit Rotation on Retention, Center For Naval Analyses, Alexandria, VA, CRC 350 February 1978.

Siggerud, D., Retention Intention Among U.S. Navy's Enlisted Personnel: An Analysis of Social, Environmental, and Economical Factors, M.S. Thesis, Naval Postgraduate School, Monterey, CA, March 1981.

Thomas, G., Elster, R., Euske K., Griffin, P., Attrition-Severity Index (ASI) for Selected Navy Ratings: Development, Navy Personnel Research and Development Center, San Diego, CA, NPRDC TR 85-1, October 1984.

Thomason, J.S., Rating Assignments to Enhance Retention, Center For Naval Analyses, Alexandria, VA, CRC 426 February 1980.

Warner, J.T., Alternative Military Retirement Systems: Their Effects on Enlisted Retention, Center For Naval Analyses, Alexandria, VA, CRC 376 September 1979.

Warner, J.T., and Simon, B., An Empirical Analysis of Pay and Navy Enlisted Retention in the AVF: Preliminary Results," Center for Naval Analyses, Alexandria, VA, Memorandum (CNA)79-1878, December 1979.

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